





Digitized by the Internet Archive  
in 2014

<https://archive.org/details/b19974760M1620>



TELEPHONE NUMBER  
BANK 852.

Registered as a Newspaper.

TELEGRAPHIC ADDRESS  
"CHEMICUS LONDON."

**Established in  
ENGLAND, 1859.**

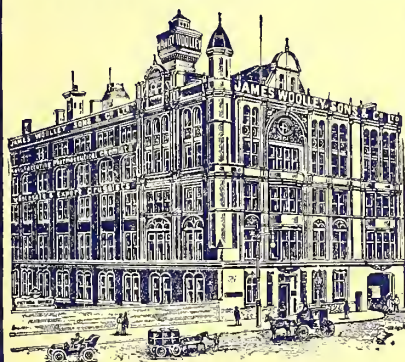
Published Weekly at 42 CANNON STREET,  
LONDON, E.C.

**Established in  
[AUSTRALASIA, 1885.]**

No. 1,545. Vol. LXXV.

SEPTEMBER 4, 1909

(Subscription, 10s. per annum, including Diary.  
Free the World over. Single Copies, 6d. each.  
Winter and Summer Issues, 1s. each. Post Free.



# James Woolley Sons & Co.

VICTORIA BRIDGE. **Ltd.**  
**MANCHESTER.**

## DEPARTMENTS.

DRUGS, CHEMICALS, and PHARMACEUTICAL PRODUCTS.  
SURGICAL INSTRUMENTS and APPLIANCES, TRUSSES, &c.  
PHOTOGRAPHIC REQUISITES, CHEMICAL and PHYSICAL APPARATUS.  
DRUGGISTS' SUNDRIES, TOILET ARTICLES, PROPRIETARY MEDICINES,  
&c.

INDENTS THROUGH BRITISH SHIPPERS.

Now Ready.

## SQUIRE'S COMPANION.

18th EDITION.

The CHEMIST AND DRUGGIST says:—

The Materia Medica notes will make the "COMPANION" a still more valuable text-book for students of pharmacy.

The PRESCRIBER says:—

It is indispensable to the student, not only on account of the quantity and the reliability of its information, but on account of the admirable arrangement and accessibility of detail.

Full Terms on application.

**SQUIRE & SONS.**  
413 OXFORD ST., LONDON.

"ALLEN'S"

## Ext. Belladonnae

(Viride)

P.B. 1898

Made from the fresh, unwilted herb, grown on our farms adjoining the factory. Our extract stands unrivalled for efficacy and appearance.

Wholesale and Export only.

SAMPLE AND PRICE FROM  
**Staff rd Allen & Sons**

LIMITED,  
Manufacturing Chemists,  
LONDON, & LONG MELFORD,  
E.C. SUFFOLK.

... THE ...

## 'FAIRCHILD' PRODUCTS.

*They have all the qualities and fulfil the conditions which promote permanent trade: they are standard goods, are in steady demand upon prescription, have a guarantee of sale behind them, and are dispensed at a fair profit.*

Made by  
**FAIRCHILD BROS. & FOSTER,**  
NEW YORK.

Agents:  
**BURROUGHS WELLCOME & CO.**  
London, Sydney, Cape Town.





# COMPRESSED TABLETS

. . . LABELLED WITH . . .

## AILMENT NAMES.

We put up the following for Retail in Screw-capped Amber Bottles, with elegant Lithographed Labels in Black and Gold. Full instructions, dose, &c., on each. In purple-shouldered hinged boxes containing 6 bottles.

An attractive Showcard supplied with assorted orders of 3 dozen.

	In S/C Tablet Bottles containing			
	25's		50's	
	Doz.	Gross	Doz.	Gross
ANÆMIA TABLETS (P.J.F. 1512) ... ..	2/-	21/-	3/2	35/-
ANTI-CONSTIPATION TABLETS (P.J.F. 9249) ... ..	2/6	27/-	3/9	42/-
ANTI-CORPULENCE TABLETS (P.J.F. 2586) ... ..	2/-	21/-	3/3	36/-
BACKACHE AND KIDNEY TABLETS (P.J.F. 5328) ... ..	3/6	39/-	6/-	66/-
BLOOD PURIFYING TABLETS (P.J.F. 1506) ... ..	1/9	18/-	2/6	27/-
COLD CURE TABLETS (P.J.F. 6127) ... ..	2/6	27/-	4/-	45/-
COUGH TABLETS (P.J.F. 425) ... ..	3/6	39/-	6/-	69/-
DIGESTIVE TABLETS (P.J.F. 2140) ... ..	4/-	45/-	6/9	78/-
HEADACHE TABLETS (P.J.F. 170) ... ..	2/-	21/-	3/6	39/-
INFLUENZA TABLETS (P.J.F. 8599) ... ..	3/6	39/-	6/-	69/-
LIVER TABLETS (P.J.F. 641) ... ..	3/-	33/-	5/-	57/-
RHEUMATIC TABLETS (P.J.F. 10,461) ... ..	3/-	35/-	5/6	63/-
THROAT TABLETS (P.J.F. 9252) ... ..	1/6	15/-	2/6	27/-
TONIC, FEMALE, TABLETS (P.J.F. 524) ... ..	2/-	21/-	3/6	39/-



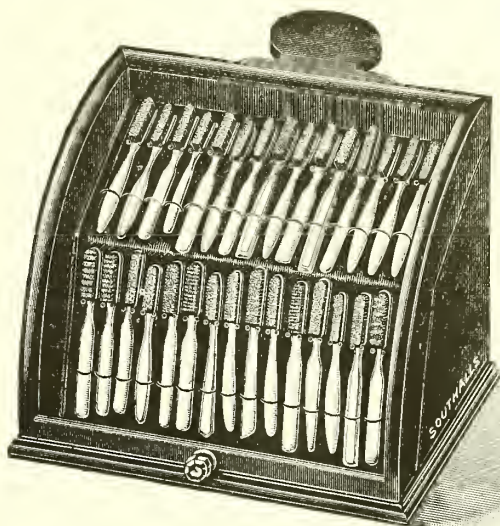
# SOUTHALLS'

## Registered Tooth-Brush Case.

Registered No. 493,235.

### "SALES DOUBLED."

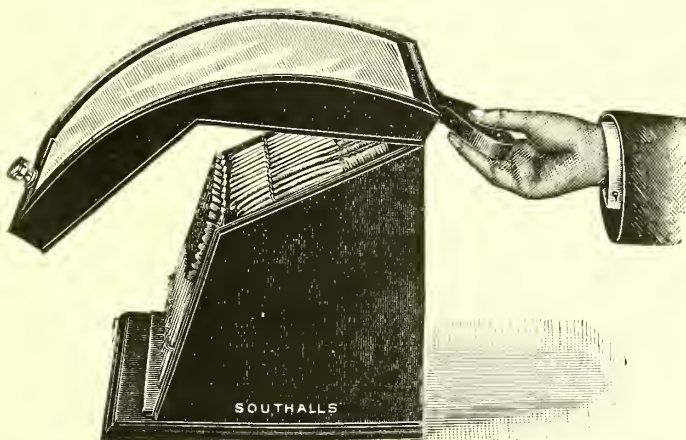
"After nine months' display I am more than pleased with the purchase. At a minimum estimate I reckon that our sales have been doubled, and it is just as effective a seller to-day as it was the first day it was placed upon the counter."



The old fashioned Case with flat glass shelves is now quite superseded; it was so difficult for the purchaser to select a brush from a heap on a shelf.

**THERE IS NO NEED TO HANDLE THE BRUSH WITH THE REGISTERED CASE,** every detail can be seen from the front without removal; its very appearance attracts attention.

- 1.—It has spaces for 30 Tooth Brushes.
- 2.—The smallest is held as securely as the largest.
- 3.—It displays goods to best advantage.
- 4.—It is a convenient size, 16 by 12 by 13.
- 5.—It has space at back in which a reserve stock may be kept.
- 6.—It has a lever behind, so that it can be opened from back or front.
- 7.—It has an easily manipulated catch to hold it open as long as required.
- 8.—It is inexpensive.
- 9.—The "Fitments" are plated and protected so that all liability to injure the brushes is removed.



❖  
**Price 25/- each,**

or in Plate-glass and Mahogany,

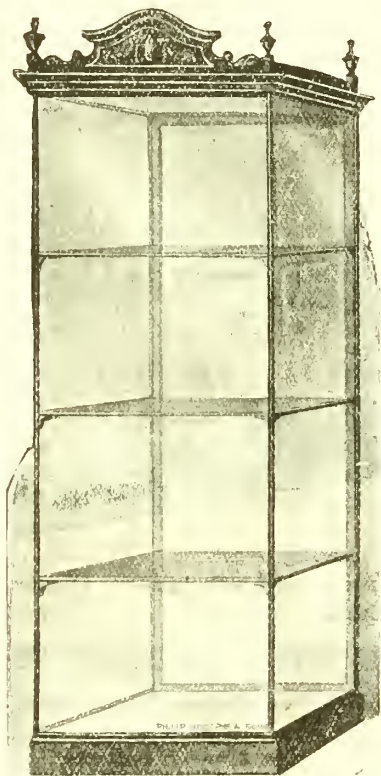
**35/- each.**

❖  
**SOUTHALL BROS.**  
**& BARCLAY, Ltd.,**  
**BIRMINGHAM.**

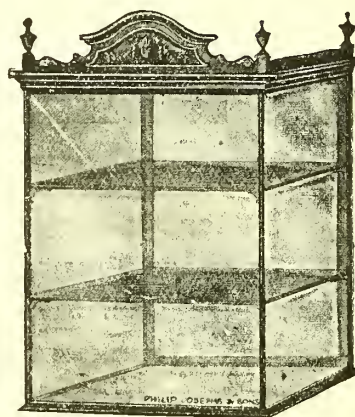
# The Original Silent Salesman

*Copied by Many.*

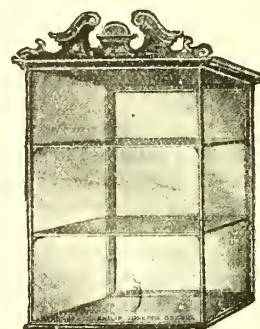
*Beaten by None.*



The "SILENT SALESMAN" measures 6ft. 6in. high over all by 2ft. by 2ft. Constructed of solid mahogany and plate glass. Made on the approved airtight principle, opening at back with transparent plate glass door. Interior fitted with three plate glass polished steel shelves on adjustable tapped bars and brackets. **£10 10 0.**



The "SILENT SALESMAN JUNIOR." Similarly constructed and measuring 3ft. 6in. high over all by 2ft. square and with two plate glass shelves. **£6 10 0.**



The "BABY SILENT SALESMAN." Constructed of solid mahogany and plate glass. Opening at back with plate glass sash and fitted with 2 plate glass shelves. Measures 2ft. 6in. high by 1ft. 6in. long by 1ft. deep. **£3 10 0.**

## PHILIP JOSEPHS & SONS, Ltd.

Tel. No. 9057 London Wall. 93 OLD STREET, LONDON, E.C.

Est. 1826.





## *Vibrona* in the East.

The following are our fixed Minimum Wholesale Prices and terms for

### GREAT BRITAIN.

CASES containing 1 dozen, 36/- per case net, carriage *forward*.

Two CASES, each containing 1 dozen, 36/- per case net, carriage *paid*.

CASES containing 3 dozen, £5 5s. per case net, carriage paid.

FIVE CASES (15 dozen) 2½ per cent. discount and carriage paid.

TWELVE CASES (36 dozen), 5 per cent. discount and carriage paid.

*VIBRONA is on the P.A.T.A. List.*

*The Minimum Retail Price is 3/9 per bottle.*

Terms for Export, with Special c.i.f. Rates to any Port in the world, may be obtained on application to the Sole Proprietors, **FLETCHER, FLETCHER & CO., Ltd., Holloway, LONDON. N.**



By Royal Warrant of Appointment

to their Majesties the  
KING and QUEEN of SPAIN.**EDWARD COOK & CO**

LIMITED

**Bow, London, E.**

... ARE ...

THE Soap Specialists,  
and prepare specialities  
for the Chemist Trade  
unequalled for quality  
and **GOOD PROFIT**  
to the Retailer.

SEND FOR OUR LATEST PRICE LISTS.



**A "SOLACE" SHAVE**

IS A **Tonic**  
TO THE **Nerves**

Simply perfect

*My skin is as delicate as my nature & I cannot shave unless I use Solace!!!*  
Seymour Hicks

**What Mr. Seymour Hicks Says!!**

**TWO PROFITABLE LINES**

that we specially commend to all Chemists . . .

**"SOLACE."**THE ANTISEPTIC SOLIDIFIED CREAM  
SHAVING STICK.Wholesale :  
**4 6** per doz. Sticks.Retail :  
**9d.** P.A.T.A.**"COFECTANT"**

(REGISTERED)

THE Disinfectant of high and guaranteed regular co-  
efficiency. **TESTED** by eminent Scientists and  
Bacteriologists. Non-toxic, non-corrosive, and  
absolutely safe for general use.

Wholesale :  
**6/6** doz. Bottles.Retail :  
**10 1/2d.** P.A.T.A.

## INDEX TO ADVERTISEMENTS IN THIS ISSUE.

HEAD OFFICE: 42 Cannon Street, London, E.C. Telegraphic Address: "CHEMICUS LONDON." Telephone No. 852, Bank.  
BRANCH OFFICES: MELBOURNE, SYDNEY, AND ADELAIDE, AUSTRALIA.

Page	Page	Page	Page
Alcock's Plasters ..... 47	Eburite Paper Co. .... 16	Jackson, E. E. .... 42	Raphaels, Ltd. .... 16
Allen, Stafford, & Sons, Ltd. .... 47	Esfon ..... 42	James, F. .... 42	Reitmeyer & Co. .... 23
Allyance Drug & Chemical Co. .... 41	Estes, E. B., & Sons ..... 45	Josephs, Philip, & Sons, Ltd. .... 4	Robinson & Sons, Ltd. .... 49
Asche, O. F., & Co. .... 40	Evans, Gray & Hood ..... 31	Judson, J., & Son ..... 44	
Ashton & Parsons, Ltd. .... 55	Evans Sons Lescher & Webb, Ltd. .... 44		
Atkinson & Barker ..... 42	Express Developing Co. .... 15	Kay Bros., Ltd. .... 20	Salle, H., & Co. .... 42
Auto-Strop Safety Razor Co., Ltd. .... 56		Leeds College of Pharmacy ... 14	Sangers' ..... 43
Bailey, W. H., & Son ..... 47	Fairchild Bros. & Foster ..Cover	Leslies, Ltd. .... 52	Sanitas Co., Ltd. ....Text 406
Baiss Bros. & Stevenson, Ltd. .... 27	Farmer, F., & Co. .... 52	Levermore, A., & Co. .... 53	Schutze, F., & Co. .... 24
Barnett & Foster ..... 32	Faulding, F. H., & Co. .... 40	Lindsey & Co., Ltd. .... 53	Scrubb & Co., Ltd. .... 23
Beetham, M., & Son ..... 25	Fentiman, A. G. .... 52	Lloyd, T. Howard, & Co. ....Cover	Shaw, Henry & Co. .... 26
Berdoe & Fish .....Col. Supp.	Fentiman, A. J., & Co. .... 53	Lofthouse & Saltmer ..... 31	Shirley Bros., Ltd. .... 53
Bewley & Draper, Ltd. ....Cover	Fink, F., & Co. .... 52	London College of Chemistry ... 14	Singleton & Cole, Ltd. .... 48
Bishop, A., Ltd. .... 35	Fletcher, Fletcher & Co., Ltd. .... 5 & Text 406	Macfarlan, J. F., & Co. .... 39	Smith, M. .... 48
Blackie, R. .... 38	Ford, Shapland & Co. .... 21	Manchester Coll. of Pharmacy ... 14	South London School of Pharmacy ..... 14
Boehm, F., Ltd. .... 24	Frowein, C. .... 20	Matthew, Jesse ..... 23	South of England School of Pharmacy ..... 3
Bond's Marking Ink ..... 26	Fulford, C. E., Ltd. .... 48	Maw, S., Son & Sons ..... 17	Southall Bros. & Barclay, Ltd. .... 14
Botwright & Grey ..... 16	Fulham Pottery & Cheavin Filter Co., Ltd. .... 46	Mawson & Co. .... 52	Squire & Sons .....Cover
Box, W. H. .... 48	Galen Manfg. Co. .... 52	Merkham Trading Co., Ltd. .... 26	Stedman, Dr. .... 52
Brady & Martin, Ltd. .... 48	Gardner, W., & Sons (Gloucester), Ltd. .... 46	Millar, A., & Co., Ltd. .... 49	Strong, Christy ..... 20
Brett & Co. ....Col. Supp.	Grapelax, Ltd. .... 52	Mitchell, N. W., & Sons, Ltd. .... 49	
Bristol-Myers Co. .... 31	Grimble & Co., Ltd. ....Text 406	National Cash Register Co., Ltd. .... 19	Thermogene Co., Ltd. .... 13
British Drug Houses, Ltd. .... 34	Gutmann's Successors, E. .... 49	Natural Food Co., Ltd. .... 31	Thermos Flask ..... 30
Bronnley & Co., Ltd. .... 25		Newbery, F., & Sons, Ltd. .... 24	Tidman & Son, Ltd. .... 44
Brown & Blackburn ..... 53	Halder, E. C. .... 53	North of England School ..... 14	Tompkins, J., Ltd. .... 53
Brunner, Mond & Co., Ltd. ....Cover	Hammond Mfg. Co. .... 29	Northern Coll. of Pharmacy... 14	Townsend, J., & Son ..... 18
Burge, Warren & Ridgley, Ltd. .... 46	Harker, Stagg, & Morgan, Ltd. .... 24	Nottingham School of Pharmacy ..... 14	Tunbridge & Wright ..... 20
Burroughs, J., Ltd. ....Text 406	Haywood, J. H., Ltd. .... 49	O'Brien, T. .... 18	Tye, J., & Son ..... 53
Burroughs Wellcome & Co. .... 33	Henry, T. & W. .... 42	Oldfield, Pattinson & Co. .... 11	Van Abbott, G., & Sons ..... 52
Buvo, Ltd. .... 31	Herpicide Co., The ..... 29	O'Neil, Zetts & Co ..... 44	Vernon & Co., Ltd. .... 46
Cadbury Bros. ....Cover	Himrod's Asthma Cure .... 38	Papier Poudré, Ltd. .... 22	Viscose Development Co. .... 42
Callard & Co. .... 53	Hoffmann-La Roche, Ltd. .... 48	Parke, Davis & Co. .... 29	Voss, W., & Co., Ltd. .... 52
Christy, T., & Co. .... 53	Horner & Sons ..... 30	Parnall & Sons, Ltd. .... 18	
Coleman & Co., Ltd. .... 30	Howards & Sons, Ltd. .... 37	Pharmazeutische Industrie-Gesellschaft m.b.H. Offenbach a.M. .... 29	Wardale & Co. .... 53
Cook, A., & Co. .... 12	Hubbuck, T., & Son, Ltd. .... 36	Pierre, Dr., Les Heretiers du Pitman, Sir Isaac, & Sons, Ltd. .... 18	Warrick Bros. ....Text 406
Cook, E., & Co., Ltd. .... 6	Hughes, E. Griffiths ..... 52	Plasmon, Ltd ..... 31	Washington Chemical Co., Ltd. ....Cover
County Borough of West Ham .... 15	Huntley, Boorne & Stevens, Ltd. .... 53	Poppelreuter, W. .... 52	Watkins & Doncaster ..... 53
Cox, A. H., & Co., Ltd. ....Cover	Hutchinson Co., The ..... 47	Potter & Clarke, Ltd. .... 51	Wilcox, Jozau & Co. ....Text 406
Cresswell Bros. & Schmitz, Branch International Sponge Importers, Ltd. .... 28		Premier Oil Extracting Mills, Ltd. .... 40	Wilkinson, S. W., & Co. .... 50
Darton, F., & Co. .... 15	Ichthyol Co., The ..... 40	Price's Patent Candle Co., Ltd. .... 25	Wilson Veterinary Medicine Manfg. Co., Ltd. .... 52
Day, Son & Hewitt ..... 21	Ingram & Royle, Ltd. .... 32		Wood, V. .... 46
Day & Sons (Crewe), Ltd. .... 40 & 54	International Chem. Co. .... 52		Woolley, J., Sons & Co., Ltd. ....Cover
Deansmere Mfg. Co. .... 21	Iron-Ox Remedy Co., Ltd. .... 36		Zahradnik, J. .... 53
Denoual & Co. .... 22	Isaacs, I., & Co. .... 49		Zeal, G. H. .... 18
			Zotos, Ltd. .... 49

## THE BUYERS' GUIDE.

In this section, under appropriate headings, are given the names of firms advertising in this or other issues of the month. No charge is made to advertisers for the insertion of their names, but only those who have contracts current for advertising in this journal are mentioned. The headings refer generally to the classes of goods actually advertised, but this is not a detailed Guide such as appears in "The Chemists' and Druggists' Diary." Inquiries addressed to "The Chemist and Druggist," 42 Cannon Street, London, E.C., regarding articles not appearing in these pages will receive prompt attention.

## ACETIC ACID

Boehm, Fredk., Ltd.  
Crown Chemical Works, Ltd.

## ADVERTISING IDEAS

Allison, J. R. B.  
Degen, F. A.  
Pitman, Sir I., & Sons, Ltd.  
Plastic Advertisement Co.  
Slack, Bernard  
Smith, W. H., & Son

## AER-WATER MACHINERY

Barnett & Foster  
British Automatic Aerators, Ltd.  
(See also FOUNTAINS)

## AER-WATER MATERIALS

Brunner, Mond & Co.  
Bush, W. J., & Co., Ltd.  
Hay, William, Ltd.  
Stevenson & Howell, Ltd.  
Stamer, Dr. Richard  
(See also ESSENCES, SOL.)

## AERATED WATERS

Camwal, Ltd.  
Idris & Co., Ltd.  
Jewsbury & Brown

## AIR CUSHIONS

Hutchinson Co.

## AGENCIES, COLONIAL, &amp; C.

Faulding, F. H., & Co.  
Lennon, Ltd.  
Murdoch, John, & Co.  
Peake, Allen & Co.  
Sankyo & Co.

## ALBUMEN

Boutin, G. L.

## ALKALOIDS

Boehringer, C. F., & Soehne  
Boehringer, C. H., Sohn  
Hoffmann-La Roche, Ltd.  
Howards & Sons, Ltd.  
Macfarlan, J. F., & Co.  
Merck, E.  
Morson, T., & Son  
Smith, T. & H., Ltd.  
Zimmermann, C., & Co.

## ALMANACKS

Townsend, J., & Sons

## AMMONIA AND SALTS

Brown & Blackburn  
Nichols Chemical Co., Ltd.  
Scrubb & Co., Ltd.  
White, A., & Sons

## ANNATTO

Fullwood, R. J., & Bland

## ANTIMONY AND ITS SALTS

May & Baker, Ltd.  
White, A., & Sons

## ANTI-OPIMUM CURE

Gerhardt, C. F.

## ANÆSTHETICS

Duncan, Flockhart & Co.  
Macfarlane, J. F., & Co.  
Smith, T. & H., Ltd.  
Zimmermann, C., & Co.  
(See also CHLOROFORM)

## ANTI-RHEUMATIC RINGS

Burge, Warren & Ridgley, Ltd.

## ARTIFICIAL LIMBS

Haywood, J. H.

## BALLROOM FLOOR POLISH

Lofthouse & Saltmer  
Woolley, Jas., Sons & Co., Ltd.

## BATH GLOVES

Hovenden, R., & Sons, Ltd.  
Schutze, F., & Co.  
Solport Bros.

## BATHING CAPS

Hutchinson Co.  
Maw, S., Son & Sons  
Schutze, F., & Co.

## BINOCULARS

Darton, F., & Co.  
Raphaels, Ltd.

## BISMUTH SALTS

Alliance Drug and Chem. Co.  
Howards & Sons, Ltd.  
May & Baker, Ltd.  
Morson, T., & Son  
Reitmeyer & Co.  
Tyrer, T., & Co., Ltd.  
White, A., & Sons

## BOOKS AND MAGAZINES

Churchill, J., & A.  
Ilford "Photo Manual."  
Lewis, H. K.  
Martindale's "Extra Phar."  
"Prescriber, The"  
Pitman, Sir I., & Sons, Ltd.  
Squire's "Companion"

## BOTANIC DRUGGISTS

Newball & Mason  
Potter & Clarke, Ltd.

## BOTTLES

Barnett & Foster  
Boling, Brown & Co.  
Brenitt, E., & Co., Ltd.  
Bush, H. W., & Co., Ltd.  
Chemist's Co-operative Wholesale  
Fecher, M. J.  
Gaasch, J. B.



**BOTTLES (continued)—**

Isaacs, I., & Co.  
Johnsen & Jorgensen, Ltd.  
Kilner Bros., Ltd.  
Lang, Jules, & Son  
Maw, S., Son & Sons  
May, Roberts & Co.  
Pothe, H., & Co.  
Toogood, W., Ltd.  
Youldon, E., Ltd.

**BOXES**

Ayrton, Saunders & Co., Ltd.  
Bremitt, E., & Co., Ltd.  
Ford, Shapland & Co.  
Harrison & Waide  
May, Roberts & Co.  
Robinson & Sons, Ltd.  
Rogers & Co.  
Stipendium Stopper Co.

**BREAST RELIEVERS**

Maw, S., Son & Sons

**BROMINE AND BROMIDES**

Howards & Sons, Ltd.  
Morok, E.

**BRUSHES**

Bidwell, Bidwell & Co.  
Hovenden, R., & Sons, Ltd.  
Kent, G. B., & Sons, Ltd.  
Maw, S., Son & Sons  
May, Roberts & Co.  
Nicholls, W. G., & Co.

**BUTTER COLOURING**

Fullwood, R. J., & Bland  
Oldfield, Pattinson & Co.

**CACHETS**

Christy, T., & Co.

**CAMOMILES**

Boehm, F., Ltd.  
Salle, H., & Cie.

**CAMPBOR**

Alliance Drug & Chemical Co.  
Chemist's Co-operative Wholesale  
Howards & Sons, Ltd.  
May & Baker, Ltd.

**CAPPING MATERIALS**

Viscose Co., Ltd.

**CAPS FOR BOTTLES, &c.**

Darter, Wilkinson & Co.  
Fecher, M. J.  
Viscose Co., Ltd. (self-fixing)

**CAPSULES**

Allen & Hanburys, Ltd.  
Baiss Bros. & Stevenson, Ltd.  
British Drug Houses, Ltd.  
Davies, Sons & Co.  
Denoual, J., & Co.  
Duncan, Flockhart & Co.  
Lloyd, T. Howard, & Co.  
Mawson & Co.  
Parke, Davis & Co.  
Tye, J., & Son  
Wand Mfg. Co.  
Wander, A.  
Warwick Bros.  
Woolley, J., Sons & Co.

**CAPSULING MACHINE**

Melin, O.

**CARBOLIC ACID**

Burt, Boulton & Haywood, Ltd.  
Calvert, F. C., & Co.  
Chemist's Co-operative Wholesale  
Hoffmann-La Roche, Ltd.  
Hollingshurst & Co.  
(See also DISINFECTANTS)

**CARBOYS**

Bremitt, E., & Co., Ltd.

**CARTONS**

Ford, Shapland & Co.  
Harrison & Waide

**CASH TILLS**

National Cash Register Co., Ltd.  
O'Brien, T.

**CASTOR OIL**

Boehm, F., Ltd.  
Hull Oil Mfg. Co., Ltd.  
Premier Oil Extraet. Mills, Ltd.

**CAUSTIC SODA**

Brunner, Mond & Co., Ltd.

**CEMENTS**

Kay Bros., Ltd.

**CHALK, PRECIPITATED**

Lovornmore, A., & Co.  
Mumford, G. S., & Sons  
Nichols Chemical Co., Ltd.  
Sturge, John & E.

**CHAMOIS**

Internatl. Sponge Importers  
Kent, G. B., & Sons, Ltd.  
Solport Bros.

**CHEMICAL MFRS.**

Boehringer, C. F., & Soehne  
Bramwell, E., & Son  
British Drug Houses, Ltd.  
Brunner, Mond & Co., Ltd.  
Burroughs Wellcome & Co.  
Harrington Bros., Ltd.  
Hoffmann-La Roche, Ltd.  
Howards & Sons, Ltd.  
Macfarlan, J. F., & Co.  
May & Baker, Ltd.  
Merek, E.  
Morson, T., & Son  
Reitmeyer & Co.  
Schimmel & Co.  
Smith, T. & H., Ltd.  
Stamer, Dr. Richard  
Sturge, John & E.  
Tyrer, T., & Co., Ltd.  
Washington Chemical Co.  
White, A., & Sons

**CHEMISTS, MFG.**

Allen, Stafford, & Sons, Ltd.  
Ayrton, Saunders & Co.  
Beetham, M., & Son  
Bell, John, Hills & Lucas, Ltd.  
Blackie, R.  
Brady & Martin, Ltd.  
British Drug Houses, Ltd.  
Burroughs Wellcome & Co.  
Bush, W. J., & Co., Ltd.  
Davenport, J. T., Ltd.  
Duncan, Flockhart & Co.  
Evans Sons Lescher & Webb, Ltd.  
Fletcher, Fletcher & Co.  
Hay, William, Ltd.  
Hewlett, C. J., & Son  
Lloyd, T. Howard, & Co.  
Lorimer & Co., Ltd.  
Martindale, W.  
Newball & Mason  
Newbery, F., & Sons, Ltd.  
Oldfield, Pattinson & Co.  
Oppenheimer, Son & Co.  
Parke, Davis & Co.  
Potter & Clarke  
Randall & Son, Ltd.  
Ransom, W., & Son  
Sankyo & Co.  
Southall Bros. & Barelay, Ltd.  
Squire & Sons  
Standard Tablet & Pill Co.  
Stevenson & Howell, Ltd.  
Thompson & Capper  
Tidman & Sons, Ltd.  
Wand Mfg. Co.  
Woolleys, Ltd.  
(See also WHOLESALE)

**CHLORIDE OF LIME**

Brunner, Mond & Co., Ltd.

**CHLOROFORM**

Duncan, Flockhart & Co.  
Macfarlan, J. F., & Co.  
May & Baker, Ltd.  
Morson, T., & Son  
Smith, T. & H., Ltd.

**CIGARS AND CIGARETTES**

Hovenden, R., & Sons, Ltd.  
Singleton & Cole, Ltd.

**CITRIC ACID AND CITRATES**

British Drug Houses, Ltd.  
Howards & Sons, Ltd.  
Morson, T., & Son  
Sturge, John & E.

**CLINICAL THERMOMETERS**

Burge, Warren & Ridgley, Ltd.  
Hicks, J. J.

Maw, S., Son & Sons  
Newbery, F., & Sons, Ltd.  
Perken, Son, & Co., Ltd.

**CLOTH BALLS**

O'Neil Zetts & Co.

**COAL TAR SPECIALITIES**

Wright, Layman & Umney, Ltd.

**COCOA**

Cadbury Bros., Ltd.  
Fram Food Co.  
Plasmon, Ltd.

**COLOURS, BEVERAGE, &c.**

Boake (A.), Roberts & Co., Ltd.  
Stevenson & Howell, Ltd.  
(See also DAIRY ADJUNCTS)

**COMBS**

Hovenden, R., & Sons, Ltd.  
Kent, G. B., & Sons, Ltd.  
Maw, S., Son & Sons  
May, Roberts & Co.

**COD-LIVER OIL**

Alhretson, A., & Co.  
Allen & Hanburys, Ltd.  
Alliance Drug & Chem. Co.  
Baiss Bros. & Stevenson, Ltd.  
British Drug Houses, Ltd.

**COD-LIVER OIL (continued)**

Devold, Feder  
Evans Sons Lescher & Webb, Ltd.  
Goodall, Backhouse & Co.  
Oldfield, Pattinson & Co.  
Southall Bros. & Barelay, Ltd.  
Woolley, Jas., Sons & Co., Ltd.  
Wright, Layman & Umney, Ltd.  
Zimmermann, A. & M.

**CORKS**

Ayrton, Saunders & Co.  
Mitchell, N. W., & Sons, Ltd.

**CORN CURE**

Edwards, S.

**CORN FILE**

Lindsey, T. C., & Co., Ltd.

**CORRUGATED PAPER**

Eburite Paper Co.

**COUNTER ADJUNCTS**

Evans Sons Lescher & Webb, Ltd.

**COUNTER SPECIALITIES**

Allen & Hanburys, Ltd.  
British Drug Houses, Ltd.  
Hewlett, C. J., & Son  
Newbery, F., & Sons, Ltd.  
Southall Bros. & Barelay, Ltd.  
Woolleys, Ltd.

**CREAM OF TARTAR**

British Drug Houses, Ltd.

**CREOSOTE**

Baiss Bros. & Stevenson, Ltd.  
Burt, Boulton & Haywood  
Morson, T., & Son

**CREPE BANDAGE**

Gimber, W., & Son  
Norwich Crêpe Co. (1856), Ltd.  
Wood, Vincent

**CYANIDES**

May & Baker, Ltd.

**DAIRY SPECIALITIES**

Fullwood, R. J., & Bland  
Oldfield, Pattinson & Co.  
Tomlinson & Hayward, Ltd.

**DEMIJOHNS**

Bremitt, E., & Co., Ltd.

**DENTAL INSTRUMENTS**

Hatrick, James L., & Co., Ltd.

**DENTAL MECHANICS**

Chalk, George, & Co.  
Fentiman, A. G.  
Fentiman, A. J., & Co.  
Halder, E. C.  
Last & White  
Wardale & Co.

**DENTIFRICES**

Beecham, T.  
Beiersdorf, P., & Co.  
Bell, John, Hills & Lucas, Ltd.  
Blackie, R.

Burroughs Wellcome & Co.  
Calvert, F. C., & Co.

Christy, T., & Co.

Cook, E., & Co., Ltd.

Eucryl, Ltd.

Hall & Ruekel

Jewshury & Brown

Lambert Pharmacal Co.

McKesson & Robbins

Maw, S., Son & Sons

Newbery, F., & Sons, Ltd.

Odol Chemical Works

Pierre, Dr.

Rowlan, A., & Sons

Standard Tablet & Pill Co.

Woods, W., & Son

Woolley, J., Sons & Co., Ltd.

**DEXTRINE**

Fink, F., & Co.

**DIABETIC BREAD AND FOOD**

Callard & Co.

Van Abbott, G., & Sons

**DIGESTIVE PRODUCTS**

Armour & Co., Ltd.  
Benger's Food, Ltd.  
Fairchild Bros. & Foster  
Parke, Davis & Co.  
Squire & Sons  
Zimmermann, C., & Co.

**DISINFECTANTS**

Baiss Bros. & Stevenson, Ltd.  
Burt, Boulton & Haywood, Ltd.  
Calvert, F. C., & Co.  
Condy & Mitchell, Ltd.  
Cook, E., & Co., Ltd.  
Dalmas, A. de St., & Co.  
Edwards, W., & Son  
Jeyes' Sanitary Compounds, Ltd.  
Kay Bros., Ltd.  
Lambert Pharmacal Co.  
Roberts, Cornford & Co.  
Sanitas Co., Ltd.  
Tomlinson & Hayward, Ltd.  
Willows, Francis B. & F.  
Wright, Layman & Umney, Ltd.  
Zimmermann, C., & Co.

**DOSE REGULATORS**

Reuter, R. J.

**DRUGGISTS' SUNDRIES**

Ayrton, Saunders & Co., Ltd.  
Barelay & Sons, Ltd.  
Berliner, Arthur  
Burge, Warren & Ridgley  
Bush, H. W., & Co., Ltd.  
Chemist's Co-operative Wholesale  
Christy, T., & Co.  
Cook, Alfred, & Co.  
Davis, J. M., & Sons  
Edwards, W., & Son  
Evans Sons Lescher & Webb  
Fecher, M. J.  
Gutmann, A. E., & Co.  
Hatrack, James L., & Co., Ltd.  
Hay, J. B., & Co.  
Hewlett, C. J., & Son  
Hovenden, R., & Sons, Ltd.  
Lennon, Ltd.  
Maw, S., Son & Sons  
May, Roberts & Co.  
Murdoch, John, & Co.  
Newbery, F., & Sons, Ltd.  
Pothe, H., & Co.  
Quelch, H. C., & Co.  
Reuter, R. J.  
Sangers  
Schutze, F., & Co.  
Solport Bros.  
Southall Bros. & Barelay, Ltd.  
Tidman & Son, Ltd.  
Toogood, W., Ltd.  
Viscose Co., Ltd.  
Wattenbach, O.  
Wood, Vincent  
Woolley, J., Sons & Co.

**DRUGS, CRUDE**

Horner & Sons  
Potter & Clarke, Ltd.  
Ransom, W., & Son  
Salle, H., & Cie.

**DRYSALTERIES**

Harker, Stagg & Morgan, Ltd.

**DYES**

Judson, D., & Son  
Whitaker & Co. (Hat)

**EAU DE COLOGNE**

Breidenbach & Co.  
Farina, J. M.  
Farina, J. M. (No. 4)  
Fickus, Courtenay & Co.  
McCracken, J., & R.  
Schutze, F., & Co.

**EDUCATIONAL INSTITUTIONS**

Bath and West of England College of Pharmacy  
British Optical Institute  
Burlington Correspondence College  
Edinburgh Central School of Pharmacy  
Glasgow School of Pharmacy  
Goldsmiths' Technical College  
Leeds College of Pharmacy  
Liverpool School of Pharmacy  
London College of Pharmacy  
Manchester College of Pharmacy  
Muter's (So. Lond.) School of Pharmacy  
North of England School of Pharmacy  
Northern College of Pharmacy  
Nottingham School of Pharm.  
Pharmaceutical Society's School of Pharmacy  
Royal Dispensary (Edinburgh)  
South of England College of Pharmacy  
University of Birmingham  
West Ham Technical Institute  
Westminster College of Pharm.

**EFFERVESCENT PREPS.**

Allen & Hanburys, Ltd.  
Bishop, Alfred, Ltd.  
Blackie, R.  
Bristol-Myers Co.  
Cox, A. H., & Co., Ltd.  
Evans Sons Lescher & Webb, Ltd.  
Goodall, Backhouse & Co.  
Kutnow, S., & Co., Ltd.  
Lloyd, T. Howard, & Co.  
Lorimer & Co., Ltd.  
Newball & Mason  
Potter & Clarke  
Standard Tablet & Pill Co.  
Sturge, John & E.  
Tyrer, T., & Co., Ltd.  
Wright, Layman & Umney



# THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

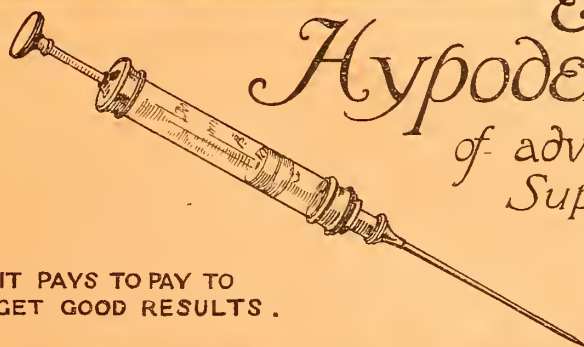
SATURDAY, SEPT. 4, 1909.

## PUBLISHER'S NOTICE TO ADVERTISERS.

Advertisers are desired to take note that the advertisements of Businesses for Disposal and Wanted, Situations Open and Required, Exchange Column, &c., belong to the **PREPAID CLASS**, and to ensure the due insertion of the announcements the remittances must accompany the instructions. A great amount of unnecessary correspondence is occasioned by the non-observance of this regulation, and the Publisher hopes that the advertisers will assist in the quick preparation and despatch of the Supplement by strictly observing this rule. Advertisements for the current issue cannot be received after 4 p.m. on Thursday in each week. Advertisers desiring to telephone an announcement to us can do so, but in such case it will be necessary to telegraph the money and to state that such money order is to be delivered at 42 CANNON STREET.

Telephone No.: 852 BANK. Telegraph Address: "CHEMICUS, LONDON."

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."



IT PAYS TO PAY TO  
GET GOOD RESULTS.

Even  
*Hypodermic Doses*  
of advertising in this  
Supplement produce the  
most gratifying  
results.

## CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—THAMES VALLEY.—Established Business; Retail, Dispensing, and Photographic; returns £700; good opening for modern trading; well-fitted shop, double fronted; terms, lease and goodwill £50, stock and fixtures at valuation.

2.—FINCHLEY (Residential Suburb).—Good middle-class Business; Retail, Dispensing, and Photographic; returns between £1,900 and £2,000 per annum; modern-fitted shop; roomy house; price £1,200.

3.—SOUTH LONDON (Main Thoroughfare).—Ready-money Business; returns (present rate) £1,000 per annum; profits above the average; double-fronted shop; modern fittings; rent £55; price £600; part payment entertained.

4.—MIDDLESEX (Few Miles Out).—Up-to-date Pharmacy; position unique; returns £1,500 per annum; net profit £350; comfortable residence, held on lease; price £900, or valuation if preferred.

5.—LONDON, S.E.—Ready-money Business; Retail and Prescribing; returns exceed £600 per annum; profit (net) £200; attractive window; excellent position; satisfactory reason for disposal; price £350, or near offer; part payment if desired.

6.—LONDON (West-end).—Old-established Business; Dispensing and Retail; returns average about £600 per annum; net profit one-third; commodious shop, well fitted and stocked; price £650.

7.—LONDON (Northern Suburb).—Modern Pharmacy; no immediate opposition; returns last year £860, increasing; double-fronted shop; corner position; price £600.

8.—CORNWALL (Market Town).—Retail and Dispensing Business; all good-class trading; returns exceed £1,400 yearly; scope for development; terms, lease and goodwill £50, stock and fixtures at valuation.

9.—HOME COUNTY.—Mixed Business; established 1804; returns average £940, which produce a net income of £300; commodious residence with lovely garden; satisfactory reason for disposal; price £700.

10.—EASTERN COUNTY.—Mixed Business; entirely unopposed; returns £1,115; net profit £250; double-fronted shop; good residence; garden; rent £35; price £450; part may remain, say £150.

11.—MIDLANDS.—Vendor retiring; old-established Business; returns average between £1,000 and £1,100 per annum; excellent profits; terms, valuation of stock and fixtures, and a sum for goodwill to be arranged equitably.

12.—GLOS.—Old-established Business; Cash Retail and Prescribing; returns between £750 and £800; gross profit 40 per cent.; well-appointed shop, double fronted; excellent house; held on long lease; price £650.

13.—GLOUCESTER (within easy distance of).—Good-class Business, Dispensing and Retail, producing a net income of about £350 per annum; attractive, well-fitted shop; commanding position; rent moderate; roomy house; offer wanted.

14.—DERBYSHIRE.—High-class Pharmacy; held by vendor many years; returns under management £700; the shop has double front, is well fitted, and fully stocked; valuation terms entertained.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

## VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasise the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.



# BRETT & CO.

**CHEMISTS' VALUERS AND TRANSFER AGENTS,**

Telegrams: "Brett Leicester."

**8 WEST STREET, LEICESTER.**

Telephone: 160 Y

**VALUATIONS** have always had our special and personal attention, and an experience of thirty years is at your disposal **AGENCY**.—We have always a large number of *Buyers* on our books, and we can frequently find a Purchaser at once. We also have a *Private Register* for vendors who are in no hurry to sell and who do not wish their businesses to be advertised.

## STOCKTAKING SPECIALISTS TO THE ENTIRE DRUG TRADE.

1.—**YORKS.**—In the busiest thoroughfare and in the centre of large manufacturing town, an up-to-date good-class Pharmacy; imposing premises; excellent house and shop; returns about £1,800; good profits; valuation, about £1,100; an excellent concern.

2.—**LONDON, W.**—Good-class Retail and Dispensing in thickly populated residential neighbourhood; several valuable Proprietaries; splendidly fitted shop and excellent house; returns £650, and increasing; price £650, or valuation; worth prompt attention.

3.—**BRADFORD Suburb.**—Mixed Cash Retail, Dispensing, and Prescribing, also Wines; old-established; in fine position; returns last year over £1,000; now about £14 per week; been neglected; can easily be worked up again; rent £35; price £120 only for quick sale.

4.—**STAFFS.**—Nice little Homeopathic Business in large town; good house and shop; returns £250; net profit £100; price £90, or offer.

5.—**WEST MIDLANDS.**—One of the finest Businesses in the district; pretty market town; very nice Family Retail, Agricultural, Photo, little Wholesale and Mineral-waters; excellent shop and premises; returns considerably over £2,000; price, goodwill and valuation, about £1,900; very profitable; vendor will consider partner with £1,000; references required.

6.—**YORKS (on the borders of Lancs).**—A very nice General Retail, with splendid sale of own Proprietaries; good house and large shop; returns under manager £925; very profitable; price £50, and stock and fixtures at valuation; good business to be done in Optics.

7.—**DEVON.**—Good-class Light Retail and Dispensing; old-established; very nice convenient house and large garden; returns nearly £1,000; net profit over £300; valuation, about £850; part can remain; low rent; an excellent opportunity.

8.—**LANCS.**—General Light Retail in busy manufacturing town; nice shop; main street; low rent; returns £1,200; profitable; price about £550, or valuation; splendid opportunity.

9.—**LANCS.**—Good General Retail, with Wholesale in Carded Goods and Sundries, with small shops; nice shop and premises; returns about £2,000; price valuation (about £500); a great bargain.

10.—**GLOUCESTERSHIRE.**—Very nice Retail, Dispensing, and Prescribing in very pretty district; returns nearly £800, and steadily increasing; good profits; good house and shop; price £650; an excellent business.

11.—**SURREY.**—General Light Retail, Prescribing, and little Photo; no serious opposition; convenient house; old-established; returns £500; net profit £200; price £250.

12.—**WANTED,** within easy distance of Leicester, a good General Retail, Dispensing, etc., Agricultural not objected to, showing a net profit of from £250 to £350; a client waiting to buy such a business at once; the transaction would be conducted without any publicity whatever.

# MESSRS. BERDOE & FISH,

**Chemists' Valuers and Transfer Agents,**

**35 JEWRY STREET, FENCHURCH STREET, CITY.**

TELEPHONE: 1809 CENTRAL.

**Have the following Businesses for Disposal. (No charge to Purchasers.)**

1.—**FASHIONABLE Inland Health Resort (South).**—Good-class Retail and Dispensing Business; returns under manager £2,250; net profit about £650; very handsome Pharmacy; heavily stocked; applicants with £2,000 can have further particulars; references required.

2.—**HAMPSHIRE.** Light Retail, Dispensing, and Prescribing Business; established many years; returns nearly £1,350; net profit £450 to £500; very best position; no keen competition; good reason for selling; price £1,275.

3.—**HOME COUNTY.**—Good-class Family Retail and Dispensing Business; returns £1,000, increasing; net profit over £300; modern house and Pharmacy; exceptionally well fitted and stocked; price £760.

4.—**SOUTH COAST.**—High-class Dispensing and Retail Business; neglected through ill-health; returns £1,100; excellent prices; plenty of scope for increase; best position in the town; owner retiring; price £950.

5.—**BERKSHIRE.**—Good-class Retail and Dispensing, with Photographic trade; returns about £850; net profit £225; good position; large house and garden; price £575, or valuation.

6.—**LONDON, S.W. (Main Road).**—Fine corner position; Cash Retail, Dispensing, and Prescribing Business; returns over £2,000 under manager; principal could do £60 weekly; price £900, or valuation; no goodwill required.

7.—**LONDON, N. (Marketing position).**—Good corner shop; returns £7 to £8 weekly; younger man could do £14; profits half; good house; price £135, bargain; well fitted and stocked.

8.—**YORKSHIRE.**—Good Light Retail Business, in very best position of important town; returns nearly £1,900 (present rate); handsome shop; fully stocked; large house; every convenience; price £1,100, about value of stock and fixtures; strongly recommended.

9.—**MIDLANDS.**—Good-class Light Retail and Dispensing Business; in good position; returns between £700 and £800; net profit £220; good house; double-fronted shop; price £500; part can remain.

10.—**LANCS (Seaside Resort).**—High-class Retail and Dispensing Business, in prominent position and showing steady increase; returns about £900; good profits; price £550, or valuation; good introduction.

11.—**SOUTH WALES.**—General Light Retail and Prescribing Business; in best position; growing district; no opposition; returns £600 to £650; plenty of scope; price £400; £250 can remain.

12.—**LIVERPOOL.**—Profitable Light Retail and Prescribing Business; returns £12 weekly, entirely under manager; low rent; corner shop; well fitted and stocked; price £275, or near offer.

13.—**SOUTH KENSINGTON.**—Good-class Retail and Dispensing Business; returns over £1,100; net profit £350 clear; very good position; well fitted and stocked; price £850.

14.—**OXFORD STREET (few doors from).**—Profitable Retail, Dispensing, and Prescribing Business; present returns about £350; can be much increased; net profit £180; lock-up shop; price £250.

## STOCKTAKING VALUATIONS.

Messrs. BERDOE & FISH make a special feature of, and special terms for, periodical valuations for stocktaking purposes. We value the stock in full detail without disturbing the routine of the business in the slightest degree; in fact, when we finish you do not know we have been. The advantages of stocktaking are: (1) You know your exact profit for income-tax and other purposes; (2) If you are overstocked, you know where, because we tell you; (3) You know whether you are fully insured against fire, and if you should have a fire, the production of our books would soon settle your claim without any loss; (4) If you wanted to sell your business you would do so twice as quickly if you had stock taken; (5) Our charges for doing the work are much lower than for ordinary valuations, and we shall have much pleasure in forwarding them on application.

J. G. BERDOE established the firm in 1870, and W. S. FISH was apprenticed to him in 1877.



# PARSON C. BAKER

174 VICTORIA ST., LONDON, S.W.

Recommended by—MESSRS. BARRON, HARVEYS & CO.  
Telephone: MESSRS. MEGGESON & CO.  
No. 27 Victoria. MESSRS. BARCLAY & SON, LTD.

NORTH LONDON.—Good Dispensing and Family Business; returns average £650; no Dentistry or Optics; shop very well fitted; good house; rent £70; price £400.

NORTH LONDON.—Excellent position leading thoroughfare; returns annually increasing, now £687; good Prescribing and Cash Retail; corner shop; good window; no Dentistry or Optics; rent £45, on lease; price £250, or reasonable offer.

SOUTH COAST.—Old-established Family Dispensing and Country trade; returning £1,400, at good prices; large shop and house; rent £110, half can be comfortably let off; small goodwill and value of stock and fixtures.

WEST LONDON Suburb (8 miles out).—Good Family Retail, with profitable Proprietaries; best position, close to station; returns about £1,100; good shop and premises; small house; rent £38; small goodwill and valuation.

LEADING Thoroughfare (North London).—Much-neglected Business; several years under manager; will sell for first reasonable offer; in up-to-date hands will command large turnover.

## W. J. ROGERSON,

(late Director Messrs. Hearon, Squire & Francois, Ltd.)

will be glad to undertake

Valuations for Transfer of Business, Probate, Stocktaking, &c.

Terms reasonable. Distance no object.

Address—

RYECROFT, BOROBIDGE ROAD, KNARESBOROUGH.

## FREDK. WM. SMITH,

LICENSED CHEMISTS' VALUER.

Valuations for transfer of business, Probate, &c. Businesses for disposal. Stocks and Fixtures purchased to any amount for cash. Stocktakings undertaken. A Register kept of Assistants and Chemists requiring Assistants; no charge made.

3 Belgrave Terrace, LEEDS

TELEPHONE 02949.

# T O M T O M

Telegraphic Address.

THOS. TOMLINSON & SON,

Chemists' Valuers and Expert Stocktakers,  
Businesses transferred privately.

29 NEW CANNON STREET, MANCHESTER.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents, or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and intimations can be sent to us direct or through the advertisers' correspondents in this country.

## BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 6d.

### COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

Replies to Advertisements may be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d. Trade circulars and samples can in no case be forwarded.

**BIRMINGHAM.**—Cash Retail Business; splendid position; returns over £500, increasing; well fitted and stocked; large convenient house; good reason for disposal; stock and fixtures worth £500; will accept £350. 185/4, Office of this Paper.

**BUCKS.**—Sound and reliable country Retail, Dispensing, and Prescribing Business, returning £990 at very good prices; well-fitted shop, fully stocked; comfortable house, with large garden; most pleasant healthy locality and within easy distance of London; stock and fixtures worth £350 to £400; lowest cash price £400; worth more. "Nemo" (186/203), Office of this Paper.

**COUNTY OF DURHAM.**—Pleasant district; for immediate Disposal (owner going into the Dental). Light Retail and Photography; good house, 8 rooms; private entrance; rent £55, £26 of which can be sublet; valuation, about £300. Apply, with reference, 182/34, Office of this Paper.

**DEVONSHIRE (Market Town).**—Good-class Family, Retail, Dispensing, and Prescribing Business, returning close upon £1,000 yearly; net profit nearly £350; best position in town; good house and garden at low rent, on lease; price £850 or offer, or valuation of stock and fixtures; £500 cash, balance by instalments; no goodwill asked, as early sale desired; genuine reasons for leaving. "D. V." (186/302), Office of this Paper.

**DURHAM County.**—Country town; population 4,000; returns £350; could easily be doubled; Light Retail, good scope for Agricultural trade; no opposition; good house; rent £18; suit unqualified man; price £125. F. W. Smith, 3 Belgrave Terrace, Leeds.

**GLOUCESTERSHIRE.**—Good-class Business, in one of the best positions in pleasant market town; excellent sale of own proprietaries; very profitable; present returns between £750 and £800, increasing each month; commanding shop; heavily stocked; very good house; price £650; will stand the strictest investigation. Address, "J. D." (186/23), Office of this Paper.

**EAST LONDON.**—Small Business for Sale; exceptional opportunity; only those who mean business need apply; Cash and reliable references required. "Toro" (186/11), Office of this Paper.

**LANCASHIRE.**—Pleasant country town; old-established Business; Light trade with Wine-licence; returns over £1,500; rent £45; lock-up shop; satisfactory reasons for disposal; price valuation, about £450. Apply, Hirst, Brooke & Hirst, Ltd., Wholesale Druggists, Leeds.

**LEWISHAM, S.E.**—Old-established Business in main road, Lewisham; well-fitted shop, nice house; splendid opportunity for a good Prescriber and Dentist; landlord will take low price for fittings for immediate entry; rent £50. Apply, 34 Loampit Vale, Lewisham, London, S.E.

**LIVERPOOL.**—Business for Disposal; easy terms of payment to suitable buyer. Ayrton, Saunders & Co., Ltd., Liverpool.

**LIVERPOOL.**—Old-established Business for Disposal; corner shop; good thoroughfare; densely populated working-class neighbourhood; business capable of great increase; good opportunity for qualified or unqualified man; family reasons for leaving; no reasonable offer refused. Apply, 185/30, Office of this Paper.

**LONDON, N.**—Rising suburb; purchaser wanted for good-class Business; owner disposing through want of capital; fullest investigation invited. Apply, "P. J. H.," c/o Messrs. Newbery & Sons, 27 Charterhouse Square, E.C.

**LONDON, S.W.**—Excellent high-class Dispensing and Retail Photographic Business; rapidly growing neighbourhood; best prices; returns last six months average £500 per annum; price £500, or near offer; fine chance for young energetic man. Apply, "Suburbs," c/o Messrs. Evans Sons Lescher & Webb, Ltd., 60 Bartholomew Close, London, E.C.

**LONDON.**—For immediate Disposal, a first-class going concern, situated in thickly populated district, returning about £1,500, with net profits well over £400; long lease; good house; price £725; only those possessing necessary capital treated with. Apply, 185/28, Office of this Paper.

**LONDON, S.E.**—Grand opportunity to acquire a sound Store Business in splendid position; main road; returns £1,000; price £550; satisfactory reasons for disposal. Apply, 186/24, Office of this Paper.

**MANCHESTER District.**—Nicely fitted double-fronted corner Shop, on main road in good neighbourhood; no opposition; few Patents; returns about £400; could be greatly increased; no bad stock; price, valuation of stock and fixtures, or near offer for quick sale. 182/2, Office of this Paper.



## BUSINESSES FOR DISPOSAL

(continued)

**NORTH OF ENGLAND.**—Business for Sale, doing large turnover, comprising Chemists', Photographic, and Wines; carried on as Score in first-class position; two small branches, one with Wine, other with Wines, Spirits, and Beer; £4,000 will be required. Apply, 185 51, Office of this Paper.

**NORTH WALES.**—First-class, old-established Dispensing and Optical Business, in beautiful locality and health resort, for immediate Disposal; excellent prices in Dispensing and Retail; valuable Proprietaries; very little opposition; rapidly increasing neighbourhood; fine premises at low rent; reasonable price; owner leaving country. Apply, "Lewis" (155/36), Office of this Paper.

**PRESTON.**—Attractive and well-fitted Shop, with good Chemist's and Druggist's Business, taking £10; increased £6 per week past year, and rapidly growing; rent only £20; price all, £325. Apply, Utton Bros., 6 Cannon Street, Preston, and refer 1576. Tels., Utton, Preston. Nat. Tel., 408.

**SHERBURN-IN-ELMET (W.R. Yorks).**—Old-established Chemist's and Druggist's Business for immediate Disposal; serves a wide radius; Wines, Spirits, and Bottled Beer and Stout; off-licence. Apply, 182 15, Office of this Paper.

**SOUTHERN Suburb.**—Light Retail and Prescribing, in busy main road; opposition negligible to energetic man; increase certain; all premises with long lease at nominal ground-rent; both at low price for immediate cash. Particulars on application to "Statim" 13 57, Office of this Paper.

**ULVERSTON.**—For immediate Sale, on account of ill-health, a very profitable established Retail Chemist's Business; Dispensing, Photographic Wares and Specialities; well-stocked shop, with prominent corner location in busy market town; turnover £4,500; been established over 50 years in same premises; exceptionally good connection; rare opportunity to acquire a fine old business; fullest investigation to bona fide inquirers. For further particulars apply to F. J. Harrison A.A.I., Valuer, Accountant, etc., Ulverston.

**BRANCH Business for Disposal,** increasing yearly, in growing neighbourhood of large Midland town; returns (1908) over £800, in rising; low rent; large house and garden; all books can be seen. 181 35, Office of this Paper.

**CHEMIST'S Business (London)** for quick Sale; owner, who is leaving for satisfactory reasons, will sell as a bargain to immediate cash; shop single fronted, well-fitted throughout; house attached; takings books shown; capital chance for a smart man. Particulars apply, Henry Bramall, Incorporated Accountant, 1, St. James Street, Sheffield.

**DRUG-STORES,** suitable for qualified or unqualified man; thickly populated working district, North Stafford; rent 4s. 6d. per week; taking about £200; for a quick sale £80 will be accepted. 155/23, Office of this Paper.

**FOR immediate Disposal,** through ill-health, unopposed Cash Business near London; nicely fitted double-fronted shop; returns average £260; price for fittings, fixtures, and goodwill, £80; stock at valuation. 186 11, Office of this Paper.

## PREMISES FOR SALE.

**TO Chemists (Manufacturing), Etc.—Deptford.**—Splendid Business Premises to be Sold, with vacant possession; the valuable leasehold premises, No. 53 Broadway, Deptford, occupying the finest position in the locality, containing basement, lofty shop and upper floors, and capable of sub-division; price £3,500; £350 cash only required, balance by monthly payments, including interest spread over 20 years if desired; and making a total payment much under rental value; lease 44 years unexpired, at a ground rent of £120 per annum; caretaker on premises. For further particulars apply, H. Johnstone, 25 Moorgate Street, E.O.

## FOR SALE.

**CHEMIST'S Stock and Fixtures for Sale;** immediate disposal, owing to giving up business. Apply, W. F. Senior, Old Market Place, Ripon.

**COMPLETE FITTINGS** for shop, including long wall-case, window-enclosure, carboys, bottles; or shop can be rented and fixtures sold at low price; suit beginner. Hubble, Workington.

**DRUG-FITTING,** 15 ft. long, 9 ft. high, 84 mahogany-front drawers, bevelled-edge glass-labels, lockers, shelving, set shop-rounds, wall-case, glass front, and cupboard, price inclusive £20; 3 counters with glass case fronts, £10; upright counter-case, 41 in. high, 30 in. wide, 25s. 186/39, Office of this Paper.

## TENDERS.

### WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

**THE Board of Management invite TENDERS** for the supply of **DRUGS, DRESSINGS, and BANDAGES** for six months from October 1. Tenders must be received on or before September 18. Tender forms and other particulars may be obtained on application to the undersigned.

September 1, 1909.

J. STEPHEN NEIL,  
House Governor and Secretary.

## TO LET.

**BEACONSFIELD.**—Shop, suitable for a Chemist; outside station in main street of this rapidly growing district; no opposition; 5 bed, bath, 2 reception, kitchen, large shop, etc.; rent £66. Frost, Auctioneer, Beaconsfield.

**CHADWELL HEATH.**—Chemist's Shop; main London road; splendid central position; no opposition; fitted in good style; nice house with bathroom and private entrance; excellent opportunity for business man; fixtures at valuation; rent £40 per annum. Apply, Ashton, High Road, Chadwell Heath. Tel. 728 Ilford.

**CRICKLEWOOD BROADWAY** (adjoining Tram and Bus Terminus).—To Chemists and Druggists.—To be Let, commanding Shop Premises, with house over, in this important thoroughfare; magnificent opening here for this trade; rent £125 per annum; shop-front, fittings, and advantageous terms arranged for responsible tenant. Apply, at once, to A. Bretzfelder, Builder, 180 Cricklewood Broadway, N.W.

**FOLKESTONE.**—To Let, commanding premises; main road; near Shorncliffe Camp; good-class neighbourhood; Chemist badly wanted; vacant; lease; rent £45; electric. Hughes & Co., Cheriton Road.

**CHEMIST Shop to Let;** 146 Tollington Park, N.; has been a Chemist for 30 years. Apply, 24 Oakfield Road, Stroud Green.

**FREE Shops to Let to Quarter Day;** good shops; fortune to Chemists; unopposed spots, Westcliff and Southend; rents £28 to £90. R. Shorefield, 2 Station Road, Westcliff-on-Sea.

**TO LET,** in October, old-established double-fronted Chemist's Shop in thickly populated district in West Riding of Yorkshire; no valuation; a qualified man would do well; nearest opposition about three-quarters of a mile; house, shop, bedrooms, warehouse outside; rent moderate. Apply, 177/36, Office of this Paper.

**TO Let,** Newport (Mon.), best position High Street, near the station and Post Office, two newly erected and commanding Business premises, comprising two commodious shops, with back entrances and exceptionally roomy and well-lighted basements; will let as a whole or in two, three, or four tenancies; shop window-fronts to suit tenants; moderate rents; suit particularly Boot and Shoe or Drug and Fancy Store; basement make good Restaurant. Apply, Newland, Davis & Huut, Estate Agents and Auctioneers, Newport, Mon.

## BUSINESSES WANTED.

**GOOD-CLASS Dispensing Business** near London; only genuine offers entertained; Herts preferred; no agents. Apply, 182/18, Office of this Paper.

**I REQUIRE** a genuine Business, open to investigation; neglected; one entertained, but must have scope for increase; in Midlands; to suit unqualified; reasonable terms bona fide buyer; no agents. 186/16, Office of this Paper.

**GENUINE good-class Business** in healthy locality, preferably Yorkshire; net profit at least £200. State particulars, rent, lease, cash terms, etc., to 184/38, Office of this Paper.

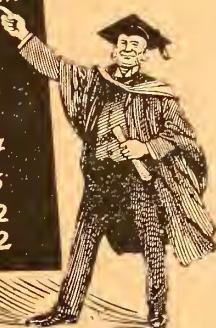
**MESSRS. BERDOE & FISH** desire to inform intending vendors that they have a number of genuine cash buyers desirous of purchasing Businesses returning from £800 to £3,000 in the Home Counties, West of England, Midlands, and Manchester districts; strictest confidence may be relied upon; terms sent on application. Address, 35 Jewry Street, Fenchurch Street, E.C.

**WANTED,** a good-class Business; returns between £750 and £1,500; open to pay a good price for a genuine concern; London suburb preferred. "T. B. C." (180/19) Office of this Paper.



## SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.



**RESULTS**  
OF ADVERTISING IN THIS SUPPLEMENT  
LAST WEEK **Aug 28 1909**

NATURE OF ADVT.	REPLIES
WORKROOM MANAGER	24
ASSISTT.	18
SITUATION WANTED	14
REPRESENTATIVE	13
MARRIED ASSISTT	12
BUSINESS FOR DISPOSAL	12

This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of advertisers who use a number or nom de plume.

## RETAIL.

## ANSWER IN TERMS OF THE ADVERTISEMENT AND

REMEMBER you are one of possibly hundreds applying for the same position. Put your case before the advertiser so that he may be able to form a MENTAL PICTURE of your suitability.

BE BRIEF BUT CLEAR—millions of applications are consigned to the waste-paper basket UNCONSIDERED, because the reader cannot form this picture from the inadequacy of the materials set before him.

**ABERDEEN ROYAL INFIRMARY.**—The Directors of this Hospital invite applications for the office of Dispenser. Candidates must have Chemist's certificate from the Pharmaceutical Society. Further particulars may be learned from the subscriber. Applications, with testimonials, to be lodged with the undersigned not later than noon of Wednesday, September 8.

A. SCOTT FINNIE, Clerk and Treasurer.

343 Union Street, Aberdeen, August 30, 1909.

**BIRMINGHAM.**—Qualified Assistant as Dispenser and Relief Manager; outdoors. Full particulars of age, height, experience, salary required, etc., to Hedges & Son, Pharmacists, Birmingham.

**BIRMINGHAM AND MIDLAND EYE HOSPITAL.**—Wanted, a male Assistant Dispenser, to attend at the above Hospital every day from 9 till 1 o'clock; salary £40 per annum. Applications, stating age and qualifications, to be sent to the undersigned on or before Thursday, September 9. By order, Charles A. Mason, Secretary. Church Street, Birmingham. August 23, 1909.

**BOMBAY.**—Assistant (just through his exam. preferred) for an English firm of Chemists; two other qualified Assistants kept; passage P. & O. paid out and home; 3 years' agreement; salary first year £175, second £200, third £215. Apply, with photo and copy testimonials, to "Bombay," c/o S. Maw, Son & Sons, 7 to 12 Aldersgate Street, E.C.

**BOMBAY.**—An Assistant wanted possessing the Minor qualification, between 25 and 30 years of age; good salary; preference given to applicants having a knowledge of Surgical Instruments and Scientific Apparatus; 4 years' agreement would have to be signed. Apply, with photo and full particulars, to "Assistant," c/o Messrs. Evans Sons Lescher & Webb, Ltd., 60 Bartholomew Close, London, E.C.

**BURSLER.**—Qualified Assistant required, about September 20, outdoors, with knowledge of Photography; weekly half-holiday. Applicants please state salary required, age, references, etc., to A. P. Tiley, Chemist, Burslem.

**CHESTERFIELD.**—Wanted, Junior Assistant for Retail and Dispensing. Please state full particulars of previous experience and salary required, with references, to T. Furness & Son, The Pharmacy, Chesterfield.

**DRESDEN.**—High-class International Pharmacy requires Assistant about middle of October; gentleman with first-class London and Continental experience and with some knowledge of German preferred. Photo and full particulars to Reichs-Apotheke, 10 Bismarckplatz, Dresden.

**FOLKESTONE.**—Junior qualified Assistant wanted, to live indoors. Apply, stating age, salary required, and previous experience, also enclose photograph, to J. W. Stainer, Chemist, Folkestone.

**GOOLE (Yorks).**—Reliable Locum required from Monday next, September 6 (or nearest). Apply, giving full particulars and enclosing references, to W. J. Sewell, Chemist, Goole, Yorks.

**HEREFORD.**—Locum, September 13 to 25; knowledge of Photography; hours 8.30 to 8.30, Thursdays 1.30; no Sunday or night duty; outdoors. Apply, with full particulars, Walter Marchant, Chemist, Hereford.

**HORLEY.**—Unqualified Assistant (outdoors), with good knowledge of Dispensing and Photography. State usual particulars and salary required, enclose photo, Crawford, Pharmacist, Horley, Surrey.

**JOHANNESBURG.**—Assistant; age 21 to 24; qualified or otherwise; outdoors; no agreement; £20 per month first year, £22 10s. per month second year; good references required. Apply, by letter, "Transvaal," 133 Onslow Drive, Glasgow.

**LONDON, N.E.**—Qualified Assistant (outdoors) for a good-class suburban business; half-day off every week. State age, height, experience, and salary expected, also enclose photo (if possible), to Matthews & Son, Chemists, 772 High Road, Leytonstone, N.E.

**LONDON, N.W.**—Unqualified Assistant; 25; outdoors; capable of taking charge; start September 20. Apply, with references, salary, etc., to Payne, Chemist, 13 Prince of Wales Road, Kentish Town, N.W.

**LONDON, W.**—Junior Assistant; unqualified; accustomed to best-class Retail and Dispensing business; outdoors. Apply, with full particulars, to "C. G. H.," c/o Shirley & Son, 60 Westbourne Grove, Bayswater, W.

**LONDON, N.W.**—Assistant, with good experience, wanted, for Dispensing business. Apply, P. Davidson, Pharmaceutical Chemist, 342 High Road, Brondesbury, N.W.

**LONDON, S.W.**—A qualified indoor Assistant required; one who has had good Dispensing experience essential. Apply to A. J. Phillips, 156 Cromwell Road, South Kensington, S.W.

**LONDON, W.**—Qualified Assistant, with good Dispensing experience; outdoors. Apply, personally if possible, or give full particulars in first instance, to Sharpe & Son, 34 High Street, Notting Hill Gate, W.

**LONDON (West).**—Qualified Junior required in a high-class Pharmacy; London experience not essential. Apply, by letter, to "A. P.," c/o S. Maw, Son & Sons, 7-12 Aldersgate Street, E.C.

**LONDON, W.C.**—Part-time Assistant wanted. Apply, Bates & Co., Drug-stores, 37 St. Martin's Court, Charing Cross, W.C.

**LONDON, S.W.**—Experienced Assistant, aged 24 to 30, required for good Dispensing and Retail business; indoors. Apply, with usual particulars, to "Dacens" (186/7), Office of this Paper.

**LONDON, N.W.**—Unqualified Junior for up-to-date cash business. Apply, with full particulars, stating salary required, to "Q." (186/10), Office of this Paper.

**LONDON, N.**—Energetic, qualified Assistant (aged 25 to 35), to take charge of branch, Locum or permanent; good references; Dispensing and Counter experience essential. Apply personally (or letters, with photo and full details), "N.," 125 Hampstead Road (near Euston). Part-time Assistant required; 4 evenings and Saturdays (or equivalent).

**LONDON, S.W.**—Wanted, Assistant, not under 25, for good-class Retail; must have good references; outdoors. Apply personally, Lloyd, 125 St. John's Hill, Clapham Junction, S.W.

**LONDON, W.**—Assistant (outdoors) required for good-class Retail and Dispensing business; Dispensing experience essential. Apply, stating full particulars, references, salary required, etc., to "V." (153/49), Office of this Paper.



# SITUATIONS OPEN *(continued).*

**LONDON, W.**—Qualified Assistant, nt once: outdoors. Please send full particulars to Frank A. Rogers, 327 Oxford Street, W.

**LOWESTOFT.**—Wanted, an energetic Assistant; aged about 24: outdoors. State salary, experience, and references, James Fisher, Chemist, Lowestoft.

**MADRAS (India).**—Qualified Assistant wanted: young man well up in his business; not afraid of work; good health; 3 years' agreement to be signed; second-class passage paid; salary, with board and lodging supplied, 200 rupees, 250 rupees, and 300 rupees per month for first, second, and third years respectively. Apply, stating experience, to "M. J." (185/26), Office of this Paper.

**MALTON (Yorks).**—Junior (outdoors) for a good-class Mixed country business, with knowledge of Photography: weekly half-holiday: no Sunday or night duty. Please state usual particulars to Buckle, 20 Market Place, Malton, Yorks.

**MIDLANDS.**—Smart qualified Manager for branch: house free. Write, stating age, references, and salary required, to 152/50, Office of this Paper.

**MIDLANDS.**—Qualified Manager wanted. Also Senior Assistant; splendid positions for capable men. Full particulars to "X. Y. Z." (185/8), Office of this Paper.

**NEATH.**—An Assistant as second where three are kept; unqualified: Welshman preferred: must understand Photography and be a capable window-dresser: outdoors: or if married could arrange for living over shop. Griffith Isaac, Pharmacist, Neath.

**NEAR LONDON.**—Wanted, at once, smart reliable Assistant (indoors): progressive salary to capable man; abstainer; permanency. Photo, salary required, and full particulars to 185/35, Office of this Paper.

**OBAN, N.B.**—Experienced gentlemanly Senior Assistant for good-class business; must be good Dispenser, smart Salesman, with intimate knowledge of Photo trade: junior and apprentice kept. State age, height, whether single or married, salary expected, when disengaged, give full particulars as to experience, and send testimonials and photo. Samuel Lawrence, Chemist, Oban.

**OXFORD.**—Junior Assistant, at once (outdoors), for good-class Retail: easy hours. Apply, stating experience, age, height, salary required, and name references, to Manager, Oxford Drug Co., Ltd., Dispensing Chemists, Oxford.

**SCARBOROUGH.**—Wanted, in September, qualified Assistant (about 22 or 23) for high-class Dispensing business. Apply, with full particulars, experience, salary required (indoors), and enclose photo (which will be returned), to Clare & Hunt, Scarborough.

**SHANGHAI.**—An Assistant wanted possessing the Minor qualification, between 23 and 30 years of age; good salary: single, and good prospects for man willing to work. Apply, with photo and full particulars, to "Assistant," c/o Messrs. Evans Sons Lescher & Webb, Ltd., 60 Bartholomew Close, London, E.C.

**SKEGNESS.**—Wanted, at once, steady, reliable, qualified Assistant: good Prescriber and able to take charge. Full particulars (photo, if possible), with references and salary required, to Robinson, Chemist, Skegness.

**SUTTON.**—Wanted, a Junior Assistant, must be a good Counter-man in a high-class Drug-store (outdoors). Apply, King's Drug-stores, High Street, Sutton, Surrey.

**TEIGNMOUTH.**—Qualified Assistant wanted by September 27 (outdoors) in Light Retail and Dispensing business. Please give usual particulars as to age, experience, and salary required, to Drug, Teignmouth.

**TUNBRIDGE WELLS.**—Wanted, Assistant in modern Cash Retail and Dispensing: good references essential. Apply, with full particulars of experience, age, height, salary (outdoors), and enclose photo (returnable), H. S. Pearmund, Pharmaceutical Chemist, 47 High Street, Tunbridge Wells.

**VENTNOR.**—Junior Assistant; about September 11; qualified or not; age about 22: best-class Dispensing, Retail, and Photographic; knowledge of Developing and Printing essential; a young gentleman leaving apprenticeship entertained if good experience. Please state salary required (indoors) to Dunning, Ventnor.

**WEST-END.**—Required, immediately, qualified Senior; age about 28; indoors. Letters, with particulars as to previous experience, salary required, height, etc., to "F. W. D.," 3 Linacre Road, Willesden Green, N.W.

**WORCESTER.**—Minor Assistant wanted in Light Retail and Dispensing business; half-day; duty between three; comfortable home. Horniblow & Son, Chemists, Worcester.

**LADY Clerk** wanted by City Chemist, Wholesale and Retail, for bookkeeping and correspondence; knowledge of Pharmacy desirable. Apply to "H. L.," 177 Stapleton Hall Road, Stroud Green, N.

**LEWIS & BURROWS** have a vacancy for a qualified Assistant. If application is made by letter, kindly enclose photograph and full particulars to 146 Holborn Bars, E.C.

**MANAGER** (qualified) required; good salary and prospects; must possess exemplary character for honesty and sobriety. Timothy White Co., Ltd., Portsmouth.

**MANAGER** required (indoors) for high-class Dispensing business. Apply, giving usual particulars, to "A. J. P.," Messrs. Plaister & Co., 13 Gledhow Terrace, South Kensington, S.W.

**MR. ADAMS**, Pharmaceutical Chemist, Shrewsbury, will require, at the end of the month, an Assistant (indoor) for the Dispensing department; age about 24; not necessarily qualified.

**QUALIFIED** Assistant for long-established Semi-Retail and Wholesale business in the Midlands; must be competent and energetic; used to mixings; live out. Apply, giving experience, where present employed, age and salary required, enclosing photo, 182/40, Office of this Paper.

**RELIEF** Assistant; from 1 o'clock to 10 p.m. on Thursdays and alternate Sundays from 6 to 10. 1898 B.P. in good condition for sale; also a few pairs of dental forceps. Williams, 189 High Street, Deptford, S.E.

**STUDYING** Assistant (indoors); five mornings a week free; actual hours, Monday, Tuesday, Wednesday, Friday, 1 to 8.30, Thursday 8.30 to 2, Saturday 1 to 11; mixed business; salary £24. Also girl as Bookkeeper and Packer (indoors); salary according to experience. Send full particulars in first letter to 184/7, Office of this Paper.

**UNQUALIFIED** married Assistant wanted, at once, to live on premises, for middle and working class business near London; must be good salesman, window-dresser, and energetic worker; good references indispensable. State salary required, with house and gas free, age, height, experience, and when at liberty, 183/37, Office of this Paper.

**WANTED**, Junior Assistant, indoors, about 21 years of age (two employed), by September 22; good opportunity to obtain experience in Dispensing and good-class Retail. Send usual particulars and reference to J. W. Feltwell, Chemist, 91 Hammersmith Road, West Kensington.

**WANTED**, for country business near South Coast, with small Wholesale in Oils, Druggists' Sundries, etc., a competent Assistant; permanency for single or married man with the right experience, and whose references will bear strict investigation. Please state salary required and when disengaged. Applications (if entertained) promptly replied to. Randall & Son, Pharmacists, Wareham.

**WANTED**, Manager for busy Store in centre of Manchester; must be up to date and qualified; please state experience, together with salary required and full references; good all-round man preferred. "Pharmacy" (185/32), Office of this Paper.

**WANTED**, Assistant, qualified, in Mixed Drug and Grocery Business in market town; short hours; no Sunday duty, half-holiday; must be an abstainer; indoor or out; one used to a Mixed trade preferred. 183/14, Office of this Paper.

**WANTED**, unqualified married man; energetic; used to Store trade; must be up-to-date and have initiative; permanency and good progressive salary to right man. State full particulars, when disengaged, etc., to "Cardir," 69 Walsingham Road, Hove.

**WANTED**, for good-class West-end business, thoroughly capable and reliable Assistant; qualified; one with knowledge of French preferred; must be of smart appearance, first-class salesman, and pushing counterman; evenings 7.30 till 12.30, Sunday duty. Apply, 186/4, Office of this Paper.

**WANTED**, for Ceylon, Dispenser holding Minor qualifications; aged 22-25; comfortable billet, with good prospects. Apply to G. E. Hudson & Son, Suffolk House, Laurence Pountney Hill, E.C.

**WANTED**, a young qualified man, single, in a good suburban business; salary and commission; good prospects for energetic and pushing salesman; must be good window-dresser, used to Photography. Apply, stating full particulars, to E. Smith, 2 Gloucester Terrace, Southfields, Wimbledon, S.W.

**HERE'S A CHANCE FOR BOTH SEXES!!!**—Sanitary Inspectors—School Nurses—Lady Health Visitors. £100-£350. All those desiring change should qualify for above appointments; postal course of lessons now commencing for examinations in London and Provinces, Scotland, Ireland, and Colonies; 450 successful candidates; fully half had no previous sanitary knowledge; fee 25s. Mushens, Sanitary Expert, Sunderland.



**I**MPORTANT to Assistants.—5s. 6d.; bedroom and use of sitting-room, dining-room, billiard-room, 10-ft. table; piano; bath (h. and c.); tennis; board as required. Mrs. Hosier, 36 Fitzroy Square, London, W.

## WHOLESALE.

**C**AN any Chemist recommend a young man who has grown up in his service, and who has experience in keeping Stock, packing Proprietary Articles, making himself generally useful? An opening in the Wholesale is available for such, with good prospects. State age, experience, and salary, "Useful" (152/45), Office of this Paper.

**L**ABORATORY.—Wanted, young man used to the work of a Druggists' Steam Laboratory; must have had experience. T. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without.

**P**ERFUMERY Travellers.—One each required Eastern Counties and part Yorkshire; also Wales and South-Western Counties. Address fully, Barnett & Co., Manufacturing Perfumers, Birmingham.

**P**HARMACIST (native Dutchman) required for Translation work by London firm of Manufacturing Chemists; temporary or part time only. Apply, with full particulars as to experience, salary, etc., to "D. P. L." (153/16), Office of this Paper.

**Q**UALIFIED Assistant to put up Wet Poisons and to assist manager of the Wet Department. Apply, giving previous experience, age, wages required, to "Opium" (153/39), Office of this Paper.

**R**EPRESENTATIVE wanted, already calling on country Chemists throughout England, open for extra line; to push vermin-destroyers; good commission and arrangements to genuine man. "Rat Poisons" (152/7), Office of this Paper.

**R**EPRESENTATIVE required by London Wholesale and Export Druggists to take up extra commission in Australia and New Zealand. Also Representative in Ceylon, Straits Settlements, and China. Apply, stating experience, terms, etc., to 182/12, Office of this Paper.

**R**EPRESENTATIVE. — Wanted, gentlemen with other good agencies, calling upon Hospitals, Medical men, etc., to sell on commission high-class Invalid Furniture; goods well known; liberal commission. State full particulars as to ground covered and firms already represented, Robinson & Sons, Ilkley Coach Works, Ilkley, Yorks.

**T**RAVELLERS required, calling on Chemists, for Malt Extract and other preparations as side-lines; state ground covered and connection; commission only. Reply by letter, 184/26, Office of this Paper.

**T**RAVELLERS for all parts of the United Kingdom, with connection among Chemists and Patent-medicine Vendors, for Patent Medicine, which will be extensively advertised, with proposition that will create a very large sale; terms, commission on all orders and repeats. State age, ground, and houses at present represented. "Lambda," c/o Hastings Bros., Ltd., King's Chambers, Portugal Street, Kingsway W.C.

**W**ANTED, three Representatives, covering all England, Scotland, and Wales, with extensive connection among Chemists, to carry two leading Specialities; small salary and good commission; articles well advertised; none but real salesmen with irreproachable characters need apply. Give full particulars (in confidence), firm or firms you are doing for, how often you cover your territory, etc., to "Caffeine" (171/1), Office of this Paper.

**W**ANTED, promptly, by Holzmüller & Schmidt, Wholesale Druggists, 15 Rue de Sévigné, Paris, for Paris office, very active English-German Druggist, capable to manage India department and push sales to England and States; salary on commission, with a minimum of francs 275 per month guaranteed. For our Calcutta office: experienced, sharp English-German Druggist as buyer and accountant; good prospects to men with initiative; both posts require capable, shrewd men. Address above, with full particulars and references.

**Y**OUNG man or woman, with Retail experience, to take charge of workroom in a Wholesale Druggists' Sundries House; must be able to manage a large number of girls and to be able to design new lines, etc. "Workroom" (144/64), Office of this Paper.

## PARTNERSHIPS.

**A**DVERTISER is desirous of meeting young single and fully qualified gentleman to join him in opening small Business about 30 miles London; small capital; advertiser is well known in district and can command immediate trade; increasing income to hard worker. Apply, "M. T." (182/20), Office of this Paper.

**C**ATTLE-MEDICINE.—Traveller, with £1,500, connection, and plant at own address, requires experienced active Partner or amalgamation with another firm or Chemist; funds not required, but a couple of hundred as financial interest would be somehow invested by an income. Replies, with age and experience, to 180/14, Office of this Paper.

## SITUATIONS WANTED

(Colonial, Indian, and Foreign).

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid. Replies addressed to this office will be forwarded to the advertiser for an additional charge of 6d.

*This heading is reserved for assistants seeking situations in the British Colonies, India, and Dependencies or elsewhere abroad.*

**Y**OUNG Pharmacist desires post as English Assistant on the Continent; good references and experience. "P. V.," 29 High Street, Hampstead, N.W.

**S**MART, energetic, unqualified Assistant, with good all-round experience, desires situation in New Zealand; disengaged. Apply, "Sitrué," 38 Longfellow Road, Mile End, London, E.

## SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid.

### [HOME.] RETAIL.

**D**ISPENSER, Locum, or permanency; qualified; 30. Rixen, Radcliffe Infirmary, Oxford.

**L**OCUM; qualified; experienced; young; September 12 to October 4. Sheasby, Lansdown, Stroud.

**P**ORTER; accustomed to a Chemist's business. "H. E.," 82 Ifield Road, South Kensington.

**L**ADY, just completing apprenticeship, seeks Dispensing experience. 177/34, Office of this Paper.

**L**OCUM, from September 13; unqualified; 21; good references. Walton, 1 Glynrhondda Street, Cardiff.

**L**OCUM; disengaged September 13; qualified; good references. Whitehouse, c/o Sturdy, Woodhouse, Sheffield.

**D**ISENGAGED, unqualified, wants work; 38; 15 years London Stores. 10 Bedford Road, West Ealing.

**L**OCUM; qualified; good experience; reliable; disengaged. "Extractor," 34 Ellingham Road, Shepherd's Bush, W.

**U**NQUALIFIED; 29; all-round experience; Photography, window-dresser; permanency. "Rhei," 12 Cresswell Terrace, Neath.

**Q**UALIFIED Lady Dispenser, experienced, requires Locum work; excellent references; live in. Apply, 179/20, Office of this Paper.

**L**ONDON.—Qualified; as Manager; exceptional experience; highest references; interview. "M. D." (173/18), Office of this Paper.

**A**SSISTANT; unqualified; aged 30; Extractor, able to do Vulcanite work, good Counter Dispenser; Scotch. Apply, 181/27, Office of this Paper.

# SITUATIONS WANTED (continued).

**D**ISPENSER and Surgery Attendant; experienced. "W. H.," 2 Fendick Road, Peckham, S.E.

**D**ISENGAGED; unqualified; several years' experience. R. M. Lclean, 11 Princess Road, Leicester.

**M**ANAGER; 35; qualified: all-round experience; Optics, etc. "Statim," 135 Queen's Road, Brighton.

**J**UNIOR or Improver; 21; disengaged; reference; Lancashire preferred. Mason, 280 Lever Street, Bolton.

**D**ISPENSER (lady); disengaged; qualified; good testimonials. A. Faulworth, Stafford Place, Weston-super-Mare.

**D**ISENGAGED; good-class country experience; unqualified; ab-stainer; neat worker. Vawser, Elwyn Road, March.

**I**MPROVER (19) requires situation: good references; height 5 ft. 9 in. Dawson, Church Road, Linchholme, Todmorden.

**E**XPERIENCED Locum: disengaged 6th; town or country; highest references. "Chemist," 33 Seaford Road, West Ealing.

**M**ANAGER; qualified; young; first-class experience; disengaged. "Chemist," 30 Rusholme Place, Rusholme, Manchester.

**A**SSISTANT; 32; Agricultural, Dispensing, Photographic; un-qualified. "Guineol," 87 Grange Street, Burton-on-Trent.

**A**SSISTANT; 8 years' good General experience; abstainer; un-qualified; highest reference. Roberts, Pharmacist, Ruthin.

**U**NQUALIFIED; London Store experience; disengaged shortly; Extractor. "Locum," 146 Philip Street, Newcastle-on-Tyne.

**N**ORTH; part-time; near school; 6 years' experience, Dispensing and Counter. Walkinshaw, 40 Stanley Road, Barrow-in-Furness.

**M**ANAGER or Senior; qualified; 29; high-class modern Store and Dispensing experience. "G. D.," 10 Lewisham Road, Highgate, London.

**Q**UALIFIED; tall; 9 years' good all-round experience; Senior or Manager. "Aspirin," 95 Dudley Road, Whalley Range, Man-chester.

**U**NQUALIFIED; 24; outdoors; London and provincial experi-ence; disengaged September 21. "Radix," 102 Cox Street, Coventry.

**A**SSISTANT; 20; abstainer; good all-round experience; excellent references. Kirk, c/o Coates & Godson, Pharmacists, Old Bas-ford, Nottingham.

**M**ANAGER; 40; married; disengaged; all-round experience; Ex-tractor and Prescriber; well recommended. Falconer, 6 Mel-rose Street, Glasgow.

**A**S Manager; permanent; outdoors; 25; best Dispensing and all-round experience; Midlands preferred; disengaged. Johnson, 36 Large's Street, Derby.

**J**UNIOR; 21; excellent references; good Dispensing and General experience; disengaged end of September. "G.," 20 Grove Hill Road, Tunbridge Wells.

**W**ANTED, by young man, age 19, situation as Improver; 12 months' experience in good Wholesale and Retail; reading for A.C.P. Harris, Cottenham, Cambs.

**U**NQUALIFIED; married; 30; tall; 14 years' experience; Counter, Dispensing, Photo, Window-dressing; town or country. Hannath, 39 Parson's Mead, Croydon.

**B**UYER and Manager for Multiple-shop Company requires similar situation; Major qualification; all particulars in confidence. Address, 183/18, Office of this Paper.

**M**ANAGER; experienced; Dispensing, Photographic; disengaged shortly; excellent references; North of England preferred. "Pharmacist," 79a High Street West, Wallsend-on-Tyne.

**C**OMPETENT, trustworthy, practical business man; good Dis-penser, Prescriber, salesman; well recommended; City and suburban experience. Forster, 5 Coleridge Road, Finsbury Park, N.

**Q**UALIFIED; 25; good Dispensing experience; disengaged. Ad-dress, 186/3, Office of this Paper.

**P**ART-TIME, evenings; Dispensing, Counter; experienced; first-class references. "D.," 5 West Street, Horsham.

**A**SSISTANT, Locum, temporary, part-time; Dispenser; unquali-fied; shortly disengaged. 186/17, Office of this Paper.

**Q**UALIFIED; 26; highest references; North of England pre-ferred. "Pharmacist" (186/13), Office of this Paper.

**D**ISENGAGED September 7; Locum or permanent; excellent Prescriber and Counterman. "A.," 127 Grove Road, Holloway.

**Q**UALIFIED lady Pharmacist requires post, Retail or Hospital; London district preferred. "K." (185/7), Office of this Paper.

**10** YEARS' all-round experience; qualified; Manager, Assistant, or Locum; disengaged. "Rhei" (186/8), Office of this Paper.

**A**SSISTANT; 36; good all-round experience, London and provin-cial; Photography; unqualified. "Statim," 22 Surrey Road, Bishopstone, Bristol.

**A**SSISTANT (22) requires situation after September 14; out-doors; time for study; good references. Thomson, Manor House, Tenterden, Kent.

**L**ADY Dispenser, Apothecaries' Hall certificate, seeks post, either hospital or private practice; experience; testimonials. Apply, "K. N.," 72 Gower Street, W.C.

**Y**OUNG lady wants situation in a Chemist's to put up Stock; can serve and attend in the Dentistry department. M. Williams, 37 Burgoyne Road, Harringay, N.

**M**ANAGER; outdoors; Major qualification; 42; good all-round ex-perience; Photography, all branches; City or near preferred. "M.," 39 Theobald Road, Leyton.

**A**SSISTANT (23½), height 5 ft. 7 in., abstainer, 7 years' experi-ence, salesman, desires engagement in brisk business. Alexan-der, 12 Fairfield Road, Beckenham.

**I**N large town with opportunity for attending classes; Junior; 21; indoors; Dispensing, Counter, and Photography; capable; tall. Strawson, Pharmacy, Bishop's Castle.

**I**RELAND.—Qualified; country and City experience; would manage a business on up-to-date lines; total abstainer; disengaged October. Apply, 182/14, Office of this Paper.

**A**S Manager, Liverpool or Manchester district preferred, Dis-pensing, Photographic, good all-round experience, highest re-ferences, seeks a change; qualified. 180/18, Office of this Paper.

**C**OMPETENT Junior; 6 years' first-class experience, Dispensing, etc.; highest references; Manchester or Midlands preferred; 30s., outdoors. Reply, "September" (177/29), Office of this Paper.

**M**ANAGER; thoroughly competent; Major qualification; ab-stainer; married; unexceptionable references; reasonable salary expected. Address, H. Hamilton, 26 Clarence Road, Seacombe.

**M**ANAGER; 34; highest references; married; first-class Dispens-ing, Counter, Photographic, and Optical experience. Give full particulars and salary. "Chemist," 64 Barnmead Road, Beckenham, Kent.

**A**SSISTANT (Senior); 29; unqualified; tall, smart appearance; reliable Dispenser, Counter, and Prescriber; highest refer-ences; permanency; outdoors. Cochrane, 44 West Tower Street, Carlisle.

**A**S Improver or Junior; lady; Hall qualification; 4 years as Dis-penser; slight Retail and Photographic experience; excellent references. "Ambleside," Carshalton Park Road, Carshalton, Surrey.

**Y**OUNG man; 22; smart and obliging; good knowledge, General, Retail, and Photographic; 6 years' reference; 12 months' Counter; low salary; disengaged; London preferred. 182/36, Office of this Paper.

**S. F.** CLARK will be open for Locum or permanent engagement on September 19; thoroughly reliable and exceptionally fitted to increase business; highly recommended. c/o W. E. Hum-phres, Chemist, Cleethorpes.



**QUALIFIED** (23) desires re-engagement; good references and experience. 183/21, Office of this Paper.

**UNQUALIFIED Assistant**; 32; London and country experience; outdoors. "F." 64 Rossiter Road, Balham, S.W.

**MANAGER**, First Assistant, Relief; qualified; experienced; London. "Codex," 32 Redburn Street, Chelsea.

**UNQUALIFIED**, married, 37, seeks immediate employment, any capacity. "V.," 77 Bennerley Road, Clapham Junction.

**LOCUM**; disengaged 19th until 26th September; aged 38; highest references. "Statim," 63a Adelaide Road, Shepherd's Bush.

**RELIABLE Locum**; qualified; elderly; excellent references; disengaged 13th for 14 days. Replies to 183/9, Office of this Paper.

**UNQUALIFIED**; 27; 10 years'; Locum, permanency; disengaged October 4. Poole, Temperance Hotel, William Street, Herne Bay.

**ASSISTANT**, energetic, aged 27, unqualified, desires engagement; good Counterman. "G. D.," Cavendish Hotel, Dalton-in-Furness.

**IMPROVER** desires post with gentleman in country business; moderate salary. Bradley Drug-stores, Bank Street, Bradley, near Bilston.

**JUNIOR**; 20; 4 years' experience; Dispensing, Counter, Window-dressing, Photography; outdoors preferred. 184/20, Office of this Paper.

**ASSISTANT**; quick; trustworthy; unqualified; aged 28; best references; immediate. "G. H. D.," 22 Endborne Road, Orrell Park, Aintree.

**PART-TIME**, evenings, Saturday afternoons, or Relief work; excellent experience; references. "London" (182/25), Office of this Paper.

**LOCUM**, disengaged September 20, for holiday duty or short permanency; best references. Apply, Follows, M.P.S., Tunstall, Staffs.

**GENTLEMAN**, engaged afternoons, desires berth as Dispenser, etc., to Surgeon or Chemist; Preparations, Photography. 184/28, Office of this Paper.

**DISPENSER**, Surgery Attendant, single, reliable, experienced, good references, requires situation; disengaged September 14. Address, North, Coedpoeth, Wrexham.

**UNQUALIFIED**; married; 33; accustomed to quick Retail and Dispensing; highest references; 17 years' experience; North preferred. 184/32, Office of this Paper.

**ASSISTANT**; 36; tall; unqualified; London, South Coast, and provincial experience; 3 and 4 years last two berths; as Senior. "Verax" (184/6), Office of this Paper.

**YOUNG energetic Chemist** desires responsible position; Manager or Assistant; preference where opportunity is offered for small investment. 184/17, Office of this Paper.

**UNQUALIFIED**; good all-round experience; Photography; London or South Coast preferred; outdoors; disengaged; good references; age 30. 183/36, Office of this Paper.

**TO the Medical Profession and Chemists**.—Bookkeeper, competent, certified, desires spare-time appointments; thorough knowledge of trade. Apply, 184/39, Office of this Paper.

**QUALIFIED Chemist**, having sold business, is open for engagement as Manager or taking responsibility for Drug Companies, etc. Apply, 182/81, Office of this Paper.

**QUALIFIED**; 26; tall; experienced; Scotsman; London, City, or West-end preferred; disengaged early October. "Assistant," c/o Mr. Barlow, Ph.C., Loughborough Junction, S.W.

**ASSISTANT**; 38; good appearance and address; unqualified; excellent references; West End and suburban experience; 35s.; disengaged September 26. "A." (184/37), Office of this Paper.

**DISENGAGED**; 24; City, West-end, and Store experience; Prescriber, Dispenser, Photographic, Window-dresser; highest references; good Salesman; outdoors. Garry, Tulse Hill, Brixton.

**DISENGAGED** September 11; unqualified; Branch Manager or Assistant; good experience. "Competent," 155 Offord Road, Highbury.

**EXPERIENCED**; 14 years in last situation; aged 39; unqualified; has managed various branches; other good references. "W. G. S.," Victoria Chambers, Paignton.

**COMPETENT Assistant**; 28; unqualified; best experience; at liberty 15th; good Dispenser, Salesman, and Window-dresser; excellent references. Nicholson, 63 Stephen's Road, Tunbridge Wells.

**ASSISTANT**; 32; disengaged; 9½ years in last situation; good references; permanency; married; Extractor; Dispensing, Counter, and Photography; unqualified; in or near Lincolnshire preferred. Thompson, 39 Lock Hill, Louth, Lincolnshire.

**MANAGER** or Senior; qualified, energetic, skilful, and conscientious; capable Buyer, Advertiser, Stockkeeper, and Salesman; age 29½; tall and smart; 15½ years' experience (two engagements of 7½ years); good salary required; disengaged in a fortnight. Apply, "Business Increaser" (184/33), Office of this Paper.

## WHOLESALE.

**DRUM** Pearl-coater requires situation; 7 years' experience; can do Gelatine. 182/10, Office of this Paper.

**ALL-ROUND Assistant and Stockkeeper**; disengaged; suit small Wholesale; City references. 186/2, Office of this Paper.

**PHARMACIST** (33) wishes to Represent well-known Wholesale house; only first-class firms need reply. 184/30, Office of this Paper.

**YOUNG man** (19), well educated, desires situation; 3 years' Retail experience; good references. "Ortol" (186/5), Office of this Paper.

**GERMAN Chemist** (24), perfect English, shorthand-typist, seeks position as Volunteer, Wholesale or Export. 185/37, Office of this Paper.

**SURGICAL Instruments and Appliances**.—Assistant (26) requires situation; 9 years' experience; good references. 180/20, Office of this Paper.

**CHEMIST**; extensive practical experience; Laboratory, Specialities, or Warehouse; able worker; efficient organiser. 182/5, Office of this Paper.

**YOUNG lady** requires situation as Stockkeeper with Wholesale Chemist; used to putting up Chemists' Sundries, etc.; excellent references. Address, 185/40, Office of this Paper.

**ADVERTISER** wishes employment with firm of Patent-medicine Manufacturers; purpose acquiring practical knowledge of manufacture; premium if required. 185/29, Office of this Paper.

**ENERGETIC Assistant** (21) seeks situation in Wholesale or Retail; wide experience in all branches Wholesale, especially Laboratory; splendid references. Reply, 182/11, Office of this Paper.

**LADY** requires responsible post; 10 years' experience, Wholesale and Retail; good references; energetic; last 4½ years in Wholesale London firm; disengaged September 20. 180/35, Office of this Paper.

**ASSISTANT**; 25; Wholesale; disengaged; Wet, Dry, Chemical, or Sundries Departments; used to large, quick Colonial and Continental Export trade; 5 years' reference. E. S. Norrie, 176a Queen's Road, Battersea. (Mark envelope "Codeine.")

**MANUFACTURING Chemist** (F.C.S.), with extensive London experience of General Manufacturing, desires engagement in Wholesale house; Analysis, Drug Standardising, and practical knowledge of all departments. 185/5, Office of this Paper.

## MISCELLANEOUS.

**MCADAM & TUCKNISS**, Sharedealers, 30 Tranquil Vale, Blackheath, S.E. Telephone 81a Lee Green.

**SHARES FOR SALE** (free of commission, subject).—35 Allen & Hanburys £1 "B" 0 per cent. Preference, 24s. 7½d., with half-year's dividend due this month; 20 Camwal Ordinary, 1s. 3d., 50 Preference 6s. 9d.; 100 John Knight & Son Ordinary, 25s. 4½d.; 100 Idris "A" Ordinary 2s. 9d., 300 "A" Preference 5s. 9d.; 100 Mappin & Webb 5½ per cent. Preference, 22s.; 100 Parke's Drug-stores 6 per cent. Preference, 15s. 9d.; 100 A. J. White Ordinary 2s. 4½d., 50 Preference 11s. 6d.

**WANTED** (subject).—50 Benger's Food Ordinary, 27s. 1½d.; 5 Camwal Debentures, £32 10s.; 100 Lewis & Burrows' Preference, 10s. 9d.; 100 John Knight Ordinary, 23s. 9d.

List of shares for sale and wanted sent free on application. Bankers, London County and Westminster. Established 1898.

**CHEAP SECOND-HAND FITTINGS, BOTTLES, ETC.**—144 second-hand stoppered rounds, assorted sizes, most labels in good condition, 75s.; 12 20-oz. blue syrup bottles, plug stoppers and gold labelled, 12s.; 12 2-lb. blue ung. jars, gold labelled, useful names, 22s.; 12 ditto pink-dome top, 28s.; 1 specially cheap set of 3 plate-glass shelves for window 5 ft. 10 in. long by 15 in., 12 in., and 9 in. wide, with standard bars and brackets, 50s.; 1 very good 4-ft. mahogany dispensing-screen, 40s.; 1 6-ft. bevelled mirror-centre dispensing-screen (very fine), £5; 1 3-ft. bent-glass front counter-case, 40s.; 1 12-ft. range of drug-drawers, gold labelled and glass knobs, £6. R. TOMLINSON & SONS, Headquarters for Chemists' Shopfittings, Boud Street (Cable Tram Route), Birmingham.



**COMPLETE FITTINGS FOR SHOP.**—In excellent condition; as good as new; 12-ft. drug fitting, 6-ft. wall-case, 6-ft. screen and counter, 8-ft. serving-counter, perfume-case and desk; £30 the lot; a great bargain. PHILIP JOSEPHS & SONS, LTD., 93 Old Street, London, E.C.

**WE HAVE WHAT YOU REQUIRE.** Drug Fittings, Counters, Wall-cases, Dispensing-screens, Perfume-cases, etc., in almost all sizes; second-hand; condition first-class; prices reasonable. Write for sketches and details giving approximate sizes, or call and inspect. RUDDUCK & CO., 262 OLD STREET, E.C.

**PROFESSIONAL PRELIMINARY EXAMINATION.**—For most rapid and successful preparation (Correspondence or Oral) join the U.K.C. (United Kingdom College), Lavender Hill, London, S.W. 6,500 successes. All papers corrected by specialists. Work in each subject graded to suit individual requirements. Special attention given to weak subjects. Special terms quoted to those mentioning this paper. Apply Principal, U.K.C., Lavender Hill, London, S.W.

## JOHN PARKES & CO. PRIORY WORKS, WARWICK

Des to state they have purchased the Letter Press Printing Business and Plant of MARTIN NEWBY, 14 New Street, Birmingham, and are prepared to execute a select amount of work for their regular customers and others. Enquiries solicited.

**SPECIALTIES:** Handbills, Memo Forms, Bill-heads, and all advertising Matter.

**TO MINOR STUDENTS.**—Simplified postal lectures on Chemistry, Pharmacy, Materia Medica, Botany, and Physics, covering the requirements of Syllabus; an ideal course for private students or those engaged in business; these lessons are arranged so as to assist those with limited time in overcoming difficulties; very moderate terms. For further particulars apply to Harker & Saunders, 239 Chapter Road, Cricklewood, London, N.W.

## XMAS ADVERTISING CAMPAIGN.

This is already planned out. It is a unique one, and should be a success in every way. Only one Pharmacist in a town will have it, and everyone will be struck with the refined, artistic campaign. As far as possible everything connected with it will be copyright. A Pharmacist who has seen the plan says "it is a good one." Have you written for a copy of my Booklet "How to INCREASE YOUR BUSINESS" yet? If you have not, send a post card to-day; it is post free. A new edition will be ready in a few days' time.

J. R. B. ALLISON, Pharmacist & Business Specialist, RETFORD.

**300 CLIENTS.** all Chemists, regularly use my unique Window-cards, and many of these constantly send me unsolicited testimonials. Here's another from Messrs. Stiles, of Doncaster, received on Monday: "Thanks for cards executed in your usual good style." Send P.O. 2s. and 6 labels and prices of your specialities and see the result. "Specialist" (186/27), Office of this Paper.

**TO APPRENTICES, JUNIORS, ETC.**—If you wish to pass the Preliminary quickly and with little trouble, write to Mr. Charles Harker, who will coach you by post; thorough systematic teaching; numerous successes in 3 and 6 months; special attention given to those of neglected education; 85 per cent. recent successes; terms very moderate. Charles Harker, 239 Chapter Road, Cricklewood, London, N.W.

**GUMMED PRICE TICKETS**

**1/3**

Crimson ground, white figures. Stocked in all usual prices up to 21/-, each price banded separately in hundreds.

The Midget, 9d. per 1,000


The Magnum, 1/6 " 1,000

assorted 10 prices.

Full illustrated list or Blanks for use with these tickets free on application.

**DUDLEY & CO., Ticket Writers & Printers, Holloway, London**

**10<sup>d</sup>**



**OYEZ!! OYEZ!! OYEZ!!**

My new Booklet, "The Door to Success" (2nd Edition), is due in from my Printing Department to-day. I want you to have one, even if you have previously had another Booklet. New facts, and new Testimonials are contained therein, which should make the most incredulous Chemist pause and think before rejecting my exclusive services for his locality for Increasing his Business. Write a post-card now. You won't regret it.

**BERNARD SLACK,**  
Princes Chambers,  
WOLVERHAMPTON.

# EXCHANGE COLUMN: BARGAINS

**TERMS.**—One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No Advertisement inserted for less than 6d.

## FOR DISPOSAL. APPARATUS.

EUREKA tablet-machine; working order; half-price, £3. WILSON, Bedford Park, London.

## BOOKS AND PERIODICALS.

KELLY'S "Chemists' and Druggists' Directory," 1908, as new; what offers? GOWEN, Cranleigh.

## DENTAL.

DENTAL chair for sale (Owen's); good condition. BUSHBY, 308 Upper Brook Street, Manchester.

## DRUGS AND CHEMICALS.

FINEST oil lavender, Mitcham, old 1901; what offers for 1 to 12 Winchester quarts of above; 1901 was a grand year for oil lavender. "E. H.," Brook Lawn, Woolhampton, Reading.

## FORMULÆ.

2s. 6d. BUYS remedy for catarrh, running nose, sneezing; huge profits; tiny pills; absolutely genuine. "CHEMIST," 90 Eton Road, Burton-on-Trent.

## OPTICAL AND PHOTOGRAPHIC.

OPTICAL.—One Javal & Schitz ophthalmometer, cost £15; trial-case, mounted lenses, cost £12; one trial frame-case, cost £2 15s.; what offers to W. GALE, Chemist, Gtateshead?

## PROPRIETARY ARTICLES.

NO Reserve.—First cash offer buys 3 doz. 1s. Iron-Ox, 2 doz. Cuticura soap, 3 doz. 2s. 9d. Cassel's tablets, 3 doz. 1s. 11d. Cockburn's pills; all saleable and clean. 181/37, Office of this Paper.

## SHARES.

SHARES for Sale. See p. 67.

## SHOP FITTINGS.

SECOND-HAND drug-drawers for sale; also doorway showcase. Offers, Croxson, 47 Gresham Street, E.C.

SIX GALLON swan-neck carboy; York glass; perfect condition; free package carriage forward; offers. APOTHECARIES' Co., 34 Virginia Street, Glasgow.

NEST drawers and lockers with shelving over, 13 ft., price £6 10s. 2 upright counter-case, 2 ft. 6 in. by 3 ft., mirror back, 3 glass shelves; £2 5s. SMITH, 3 Belgrave Terrace, Leeds.

THREE elegant pear-shaped carboys, 5 gal., and 2 ditto 2½ gal., plain stoppers; excellent condition; f.o.r. Manchester, what offers? "E. E. B.," 48 Welbeck Street, C.-on-M., Manchester.

## MISCELLANEOUS.

TRUSSES; right, left, double; stock-soiled; accept best offer, whole or part; sample 1s. LARIN, Limerick.

WHAT offers?—Vee-dee vibrator, lung bell, high-frequency apparatus with couch; cash or exchange; ophthalmometer wanted. 182/30, Office of this Paper.

## WANTED.

MARTINDALE'S, twelfth edition; "Pharmaceutical Formulas," 1908. Lowest price to BOSTROW, Chemist, South Norwood.

WANTED, a trial-case in good condition. Price to "E. O. G." (182/32), Office of this Paper.

WANTED, copy of Allen & Hanburys' new list; what offers? Address, 153/9, Office of this Paper.

MINOR. Major, Chemists' books.—Send prepaid for valuation; cash offers per return. GOWEN, Bookseller, Waterloo, Liverpool.

HYDRAULIC tincture-press; tilting, boiling and evaporating pans; set hydrometers from .800 to 1.300. 181/33, Office of this Paper.

FORMULÆ purchased; hair lotion, dye, or dressing, skin-food cream, cosmetic lotion; good price. Sample to W. LEWIS, 12 Shelden Street, London, W.

## ADDRESSES WANTED.

PRESENT address of Mr. T. R. Townson, late of 34A Ramden Road, Balham, S.W. 150/38, Office of this Paper.

PRESENT address of Thomas Henderson Huggett, formerly of London, and last heard of in the Isle of Man. 153/23, Office of this Paper.



## The Week's Poisonings.

TWENTY-TWO fatalities, including nine misadventures, have been recorded with poisons during the week. Suicide while of unsound mind was the verdict returned at the inquest upon Rose Ineson (21), domestic servant, in the employ of a Nelson physician, who poisoned herself with prussic acid.—The same verdict was returned at the inquiry into the death of Frederick George Carter, farm labourer, who used cyanide of potassium as a lethal agent.—Deceased obtained the poison for the purpose of killing wasps from Mr. H. W. Brassington, chemist and druggist, Horsham, on the day previous to his death.—An accidental overdose of morphine sulphate was taken by Ernest Frederick Bennett (47), a Foreign Office pensioner, residing in a St. Pancras club. It was stated at the inquest that deceased acquired the drug-habit while he was in China.—At Aston an eighteen-months-old child obtained some sugar-coated pills containing morphine, and swallowed some with fatal results. A pink powder had previously been given to the infant, but analytical investigation showed that the powder was free from morphine, but that alkaloid was present in the child's internal organs.—An open verdict was returned at the inquiry into the death of James Howcroft, ostler, Freshwater. Deceased, who had acquired the drug-habit, swallowed 2 oz. of laudanum, which he obtained from Mr. William E. H. Richardson, chemist and druggist, Freshwater, by representing that the opiate was required for external application to a horse.—Opium-poisoning, through taking laudanum with suicidal intent, caused the death of an unemployed engineer's fitter, named Edward Turnbull, who died in Lambeth Infirmary.—The same lethal agent was used by Squire Atkinson Naylor (55), mechanic's labourer, at Bradford. Mr. Arthur Faull, chemist and druggist, 206 Westgate, deposed at the inquest that he sold deceased the laudanum to prepare a mixture which Naylor stated he had been in the habit of making.—Carbolic acid, self-administered, caused the death of Mary Riding (45), the wife of a Liverpool carpenter.—Carbolic acid was also taken for the same purpose by Ellen Gallagher (43), a Preston weaver.—The same acid, taken by misadventure, hastened the death of Alfred Wm. Welsh (24), Hackney, London, N.E.—An Earlsfield ex-commissionaire, named Samuel John Bacon (55), bought two penny packets of oxalic acid and took a quantity with fatal results.—Charles Tompsitt (43), a pensioned quartermaster, at Woolwich, died from the effects of taking oxalic acid with suicidal intent.—The same poison was responsible for the death of an unknown woman who was found on Hampstead Heath.—A verdict of death by misadventure was returned at the inquest on Jane Steel Hearn (54), lady's companion, Marylebone Road, London, W., who died in consequence of taking an overdose of trional. A local chemist deposed to supplying six 10-grain trional powders, and also to warning the accused that they should only be taken on medical advice.—An overdose of an allied hypnotic, sulphonal, caused the death of Marie Swale (71), at Harrogate. Her son deposed that he bought 1 oz. of sulphonal from a local chemist to aid him in obtaining sleep. He had been giving his mother 5-grain doses, which he weighed himself. Deceased had never helped herself until this last fatal dose.—Susan Kernsley (40) died at Wandsworth through drinking spirit of salt. The jury took the view that the corrosive fluid had been taken by misadventure.—The same acid was taken by Joseph Canford (55) at Moseley Village with the object of ending his existence. It was stated that deceased had probably taken about 3 oz. of the spirit of salt.—Salt of lemon was used for suicidal purposes by James Parratt Harriss (39) at Pentonville, London, N. The jury expressed the opinion that further restrictions should be placed on the sale of salt of lemon.—The wife of a Twickenham carpenter, named Hitchins, also committed suicide by taking salt of lemon.—A Bristol baby, named James Henson (aged sixteen months), died through drinking some "lees" containing caustic potash, which were placed on a window-ledge ready for using for cleaning purposes.—At Elmham, Norfolk, two boys, named Geo. Wallis (12) and Cecil Percy Green (11), died from belladonna-poisoning in consequence of eating the berries of the deadly nightshade, while another companion is still in a precarious condition.

**CHINESE GINSENG.**—The exports of Ginseng from Newchwang during 1908 amounted to 2,919 tons; valued at 32,969l., against 2,565 tons, valued at 45,279l., in 1907.

**THE CARBON TETRACHLORIDE FATALITY.**—The Westminster Magistrate heard on Thursday, September 2, further evidence in the charge of manslaughter against two employés in the hairdressing department of Harrod's Stores, Ltd., arising from the death of a young lady who died while being dry-shampooed with carbon tetrachloride (see *C. & D.*, August 23, p. 363). Dr. Augustus Pepper gave evidence, and the hearing was adjourned until September 24.

## Agri-Horticultural Poisons.

### Notices of Application

for licences under Section 2 of the Poisons and Pharmacy Act have been lodged with the local authorities named.

Subscribers and others would oblige us by sending information with reference to applications. Copies of newspapers containing the advertisements of applicants would also be esteemed.

**CHELTENHAM.**—John J. Broad (Powell, Gwinnet & Co., Ltd., coal-merchants, etc.), 34 Promenade.

**CHESHIRE.**—Harriet E. Mahood, florist, 3 Wallasey Road, Liscard.

**DUNFERMLINE.**—Archibald A. Dawson, ironmonger, 124 High Street.

**EDINBURGH.**—G. W. Lawrie (Lawrie & Lawson, ironmongers and seed-merchants), 105 West Port.

**KINCARDINESHIRE.**—Alex. Burness, merchant, Strachan.

**LONDON.**—Wm. Morle, nurseryman, 156 Finchley Road, N.W.

**ROSS.**—Norman Mackenzie, merchant, Bayble-by-Stornoway.

**SURREY.**—Thomas Hogg & Son, nurserymen, Manor Lane, and 7 The Promenade, High Street, Sutton; Herbert H. Blades (R. H. Blades & Co., ironmongers), Station Road East, New Oxted.

### Consideration of Applications.

**ETON.**—The local Council on August 24 referred an application from Mr. Woodbridge, of Gerrard's Cross, to the Clerk for consideration and report to the next meeting.

**MERIONETHSHIRE.**—The General Purposes Committee of the County Council recommend that licences be issued to the following applicants: John Hughes & Sons, Railway Shop and Cambrian Stores, Trawsfynydd; Robert Williams, Post Office, Capel Celyn, Bala; Owen Edwards, Dysynni Stores, Abergynolwyn; W. J. Williams, Beehive, Trawsfynydd; E. H. Williams, The Stores, Llandrillo.

**WIGAN.**—The Watch Committee report having received a letter of protest from the local Chemists' Association, and subsequently an application for a licence from Messrs. E. Bell & Son, seedsmen, 64 Market Street, which the committee recommend should be granted.

### Application Refused.

**BARNSTAPLE.**—The Town Council have refused the application of H. and W. J. Williams (H. R. Williams & Co.), ironmongers, 10 High Street, apparently as a sequel to the attention of the Privy Council being drawn to the condition under which the two previous licences were issued.

### Fees Fixed.

**WIGAN.**—Licence, 5s.; renewal, 1s. 6d.

**ESPERANTO AND PHARMACY.**—During the fifth Esperanto Congress, which takes place next week in Barcelona, meetings of members of the Esperantist Association of Pharmacists have been arranged, and among others the following subjects will come up for discussion:

Ought the number of pharmacies to be limited? *Cu la apotekoj devas esti limigitaj aŭ nelimigitaj? (Interdiskutado.)*

Incompatible medicinal substances. *Pri kelkaj nekunigeblaj medicinaj substancoj. (Komunikaĵo.)*

The reactions of the halogen salts of iron. *Pri ĝenerala reakcio de la saloj halogenidaj de fero. (Komunikaĵo.)*

Ought pharmacy to be a scientific or a commercial matter? *Cu Farmacio devas fariĝi sciencia, aŭ komerca afero? (Interdiskutado.)*

The utility of national formulae published by pharmaceutical societies for the uniform preparation of medicinal compounds not yet included in the official Pharmacopœias. *Utileco de la naciaj formulaĵoj, verkitaĵoj de la Farmaciestaj Societoj, por la unuforma preparado de la kuracistaj ordonaĵoj kaj de la medicinaj kunmetataĵoj, kies preparado ne estas enskribita en la oficialaj Farmakopeoj. (Raporto kaj pridiskutado.)*

Is the publication of an International Pharmaceutical Review in Esperanto possible?

*Cu estas necesa, utila kaj ebla la eldono de Internacia Esperanta Farmacia Revuo? (Interdiskutado.)*

The meetings will be held under the presidency of Dr. Ramon Bartomeu, Doctor of Pharmacy in Barcelona, and the "Colegio de Farmacéuticos" will give an official reception. The Secretary of the pharmaceutical section of the Congress is Mr. Oscar Van Schoor, 20 Vondelstrato, Antwerp, Belgium.



# MARSHALLS' Ltd., Colebrooke Works, ISLINGTON, N.

TELEPHONE: 833 CITY.

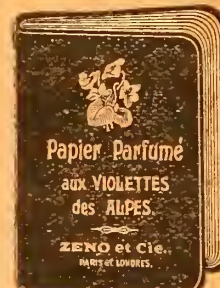


Best selling Book on the Market. 24 - gross.



With Mirror, 30 - gross.

**BOOKLETS UP TO DATE.**  
**INDISPENSABLE POCKET TOILET COMPANIONS.**



Gilt edge, satin bound for high-class trade, 3/- doz.; with Mirrors, 3/6 doz.



Nail Powder Leaves and Manicure Requisites, also Mirror. 4 - doz. A cheaper line in card covers, 2/6 doz.



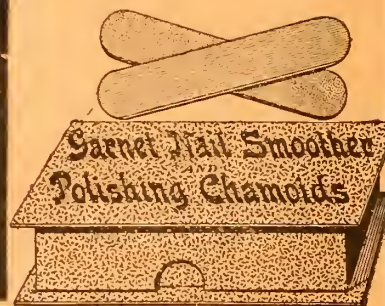
Well-made Leather Wallet, with Gilt edge Powder Leaves, Also improved Nail Smoother & Polisher, Acme, 8 - doz. Refills, 1/6 & 2/6 doz.



3/- per doz.



Orange Sticks. 1/2 doz. in bundle. 2/6 doz. bundles.



1 doz. in Box. 5/6 per doz. boxes.



18/- per gross.



## PILE OINTMENT.

An efficacious preparation prepared with witch hazel, neatly packed in 1 oz. tubes, cartoned, complete with tubes, 7/6 doz.; spare tubes 3/- doz.



## TOILET CREAMS IN GOLD BLOCKED JARS.

TWO SIZES.



## MENTHOL INHALER For INFLUENZA.



2/6 per doz. Empty 1/6



## COLLAPSIBLE TUBES

OF ALL KINDS.

Adeps Lanæ, Anhydrous, Odourless, 10d. per lb.



**ELASTIC HOSIERY**

Ayrton, Saunders & Co., Ltd.  
Berliner, Arthur  
Burge, Warren & Ridgley, Ltd.  
Haywood, J. H.  
Maw, S., Son & Sons  
Wood, Vincent

**EMERY AND CLOTH**

Oakey, J., & Sons, Ltd.

**EMULSIONS, COD - LIVER OIL, ETC.**

Allen & Hanburys, Ltd.  
Baiss Bros. & Stevenson, Ltd.  
Blackie, Robert  
British Drug Houses, Ltd.  
Faulding, F. H., & Co.  
Harker, Stagg & Morgan, Ltd.  
Lorimer & Co., Ltd.  
Oldfield, Pattinson & Co.  
Scott & Bowne, Ltd.  
Parke, Davis & Co.  
Woolley, Jas., Sons & Co.  
Woolleys, Ltd.

**ENEMAS**

Bailey, W. H., & Son  
Burge, Warren & Ridgley  
Daval Rubber Co.  
Hatrack, James L., & Co., Ltd.  
Hay, J. B., & Co.  
Maw, S., Son & Sons  
Toogood, W., Ltd.  
Warne, W., & Co., Ltd.

**ENTOMOLOGICAL APPARATUS**

Watkins & Doncaster

**EPSOM SALTS**

Howards & Sons, Ltd.

**ESSENCES, CONCRETE**

Lautier Fils  
Murray, O., & Co., Ltd.  
Roure-Bertrand fils  
Schmoller & Bompard

**ESSENCES, SOL. AND FRUIT**

Alliance Drug & Chem. Co.  
Barnett & Foster  
Boake (A.), Roberts & Co., Ltd.  
Bush, W. J., & Co., Ltd.  
Evans Sons Lescher & Webb  
Hay, Wm., Ltd.  
Lautier Fils  
London Essence Co.  
Lorimer & Co., Ltd.  
Newball & Mason  
Roure-Bertrand fils  
Spencer, J., Son & Co.  
Stevenson & Howell, Ltd.  
Zimmermann, A. & M.

**ETHERS**

Baiss Bros. & Stevenson, Ltd.  
Macfarlan, J. F., & Co.  
May & Baker, Ltd.  
Tyrer, T., & Co., Ltd.  
White, A., & Sons

**EUCALYPTUS OIL**

Baiss Bros. & Stevenson, Ltd.  
British Drug Houses, Ltd.

**EXTRACT OF HERBS**

Newball & Mason  
Potter & Clarke

**EXTRACTS (MEDICINAL)**

Allen, Stafford, & Sons, Ltd.  
Chemist's Co-operative Wholesale  
Hewlett, C. J., & Son  
Parke, Davis & Co.  
Ransom, W., & Son  
(See also WHOLESALE DRUGGISTS)

**FEEDING BOTTLES**

Breffitt, E., & Co., Ltd.  
Hovenden, R., & Sons, Ltd.  
Kilner Bros., Ltd.  
Maw, S., Son & Sons  
Sangers  
Southall Bros. & Barclay, Ltd.

**FILTERS (WATER)**

Berkefeld Filter Co., Ltd.

**FLESH GLOVES**

Sangers

**FLYCATCHERS**

Alabastine Co. (British), Ltd.  
Deansmere Manfg. Co.  
Flycatcher  
Ford, Shapland & Co.  
Frowine, C.  
Kay Bros., Ltd.  
Smith, J. H., & Co.  
Strong, Christy  
Tunbridge & Wright

**FOODS, INFANTS'**

Allen & Hanburys, Ltd.  
Benger's Food, Ltd.  
Frame Food Co., Ltd.  
Lothhouse & Saltmer  
Natural Food Co., Ltd.  
Willows, Francis, B. & T.

**FORMALDEHYDE**

Burt, Boulton & Haywood

**FOODS, SPECIAL**

Allen & Hanburys, Ltd.  
Benger's Food, Ltd.  
Brand & Co., Ltd.  
Burt, C. J.  
Buvo, Ltd.  
Callard & Co.  
Fairchild Bros. & Foster  
Frame Food Co., Ltd.  
Menley & James, Ltd.  
Natural Food Co., Ltd.  
Wander, A.

**FRUIT CRYSTALS**

Aerators, Ltd.

**FRUIT SYRUPS**

Idris & Co., Ltd.

**FULLER'S EARTH**

Mumford, G. S., & Sons

**FUMIGATORS**

Sanitas Co., Ltd.

**GELATIN AND GLUE**

Boehm, F., Ltd.

**GLASSWARE, CHEMICAL**

Zahradnik, Jos.

**GLAUBER'S SALT**

Bramwell, E., & Son  
Howards & Sons, Ltd.

**GLYCERIN**

Boehm, F., Ltd.  
Price's Patent Candle Co.

**GLYCEROPHOSPHATES**

Pointet & Girard

**GOLD PAINT**

Judson, D., & Son

**GRINDERS**

Allen, Stafford, & Sons, Ltd.  
Goodall, Backhouse & Co.  
Willows, Francis B. & T.

**GUMS**

Pink, F., & Co.

**HAIR WAVERS AND CURLERS**

Merkham Trading Co., Ltd.

**HAIR PREPARATIONS**

Capsuloids (1909), Ltd.  
Chesebrough Manfg. Co.  
Edwards' "Harlene" Co.  
Harker, Stagg & Morgan  
Herpicide Co.  
John Strange Winter  
Robare's Aureoline  
Rowland, A., & Sons  
Woolleys, Ltd.

**HAT DYES**

Whitaker & Co.

**HAT RENOVATORS**

Christy, T., & Co.

**HEATING FLASKS**

Gutmann, A. E., & Co.

**HERBS**

Potter & Clarke

**HOMOEOPATHIC MEDICINES**

Ashton & Parsons, Ltd.  
Keene & Ashwell, Ltd.  
Leath & Ross

**HOTELS**

Esmond Hotel  
Kingsley Hotel  
Thackeray Hotel

**HOT-WATER BOTTLES**

Berliner, Arthur  
Burge, Warren & Ridgley  
Fulham Pottery & Cheavin  
Filter Co., Ltd.  
Hutchinson Co.  
Maw, S., Son & Sons  
May, Roberts & Co.  
Southall Bros. & Barclay  
Tompkins, James, Ltd.  
Wood, Vincent

**HYDROGEN PEROXIDE**

May & Baker, Ltd.

Sanitas Co., Ltd.

Tyrer, T., & Co., Ltd.

Tyrer, T., & Co., Ltd.

May & Baker, Ltd.

Christy, T., & Co.

Sangers

**INK**

Bewley & Draper, Ltd.  
Hickisson, A. B.

**INSECTICIDES**

Christy, Thos., & Co.  
Smith, B. A., & Co.  
Tomlinson & Hayward, Ltd.  
Voss, Walter, & Co.  
Woolleys, Ltd.

**INSECT POWDER**

Boehm, F., Ltd.  
Smith, B. A., & Co.

**IODINE AND IODIDES**

Howards & Sons, Ltd.  
Morson, T., & Son

**ITROSYL**

Fletcher, Fletcher & Co.

**JARS AND POTS**

Boling, Brown & Co.  
Breffitt, E., & Co., Ltd.  
Bush, H. W., & Co., Ltd.  
Christy, T., & Co.  
Cook, A., & Co.  
Johnsen & Jorgensen, Ltd.  
Kilner Bros., Ltd.  
Lang, Jules, & Son  
Maw, S., Son & Sons  
Poths, H., & Co.  
Reuter, R. J.  
Stipendium Stopper Co.  
Toogood, W., Ltd.

**LACTIC FERMENTS**

Allen & Hanburys, Ltd.  
Cox, Arthur H., & Co., Ltd.  
Davies, Sons & Co.  
Martindale, W.  
Parke, Davis & Co.  
Wilcox, Jozeau & Co.

**LAMPS, DISINFECTING**

Roberts, Cornford & Co.

**LANOLINE**

Burroughs Wellcome & Co.  
Christy, T., & Co.

**LARD**

Chemist's Co-operative Wholesale  
Ewen, J., & Sons

**LIME JUICE AND CORDIAL**

Evans Sons Lescher & Webb  
Goodall, Backhouse & Co.  
Idris & Co., Ltd.

**LINSEED, CRUSHED, ETC.**

Allen, Stafford, & Sons  
Mumford, G. S., & Sons

**LINTS**

Liverpool Lint Co.  
Robinson & Sons, Ltd.  
Vernon & Co., Ltd.

**LIQUORICE JUICE**

Boehm, F., Ltd.  
British Drug Houses, Ltd.  
Evans, Gray & Hood  
Evans Sons Lescher & Webb, Ltd.  
Horner & Sons  
Jackson, E. E.  
Mumford, G. S., & Sons

**LIQUORS, CONC., ETC.**

Allen, Stafford, & Sons, Ltd.  
Fletcher, Fletcher & Co.  
Hewlett, C. J., & Son  
Robinson, B., & Co.

**LITHIA SALTS**

British Drug Houses, Ltd.  
May & Baker, Ltd.  
Merck, E.

**LOOFABS**

International Sponge Importers

**LOZENGES**

Cox, A. H., & Co., Ltd.  
Denoual, J., & Co.  
Jackson, E. E.  
Meggeson & Co., Ltd.  
Potter & Clarke  
Raimes & Co.  
Warriek Bros.

**MACHINERY, PHARMACAL**

Allen & Hanburys, Ltd.  
Bennett, E., & Son, Ltd.  
Bennett, Sons & Shears, Ltd.  
Fecher, M. J.  
Gardner, Wm., & Sons, Ltd.  
Pindar, J. W., & Co.  
Smith, B. A., & Co.  
Stokes, F. J., Machine Co.  
Thompson & Capper (Stokes)  
Wilkinson, S. W., & Co.

**MAGNESIA AND ITS SALTS**

Henry, T. & W.  
Howards & Sons, Ltd.  
May & Baker, Ltd.  
Washington Chemical Co.

**MAILING CASES**

May, Roberts & Co.

**MALT EXTRACT AND PREPS.**

Allen & Hanburys, Ltd.  
Blackie, R.  
British Dia Malt Co.  
Burroughs Wellcome & Co.  
Evans Sons Lescher & Webb  
Hewlett, C. J., & Son  
Lorimer & Co., Ltd.  
Oppenheimer, Son & Co., Ltd.  
Paine & Co., Ltd.  
Southall Bros. & Barclay, Ltd.  
Woolley, Jas., Sons & Co., Ltd.  
Wright, Layman & Umney

**MARKING INK**

Hickisson, A. (Bond's)

**MEASURES**

Bush, H. W., & Co., Ltd.

**MEAT EXTRACTS**

Armour & Co., Ltd.  
Brand & Co., Ltd.  
Buvo, Ltd.

**MEDICINE CHESTS**

Burroughs Wellcome & Co.  
Keene & Ashwell, Ltd.  
Leath & Ross  
Lloyd, T. Howard, & Co.  
Parke, Davis & Co.

**MENTHOL CONES**

Bush, H. W., & Co., Ltd.  
Maw, S., Son & Sons

**MERCURIALS**

Howards & Sons, Ltd.  
May & Baker, Ltd.  
Merck, E.  
Tyrer, T., & Co., Ltd.

**METEOROLOGICAL SETS**

Darton, F., & Co.

**METHYLATED SPIRIT**

Burrough, J., Ltd.  
Preston's Liverpool-Distillery  
Randall & Son, Ltd.

**MILK APPARATUS**

Zimmermann, C., & Co.

**MILK SUGAR**

Zimmermann, C., & Co.

**MINERAL WATERS AND SALTS**

Apollinaris Co., Ltd.  
British Drug Houses, Ltd.  
Hughes, E. Griffiths  
Ingram & Royle, Ltd.  
Vichy (State Springs)

**MOTOR GOGGLES**

Darton, F., & Co.

**NAPHTHAS**

Burt, Boulton & Haywood

**NURSES' WALLETS**

Hatrack, James L., & Co., Ltd.

**OILS, ESSENTIAL**

Allen, Stafford, & Sons, Ltd.  
Alliance Drug & Chem. Co.  
Boake (A.), Roberts & Co., Ltd.  
Boutin, G. L.  
Bush, W. J., & Co., Ltd.  
Chris, Antoine  
Evans Sons Lescher & Webb, Ltd.  
Horner & Sons  
Lautier Fils  
Lhermine & Cie.  
London Essence Co.  
Matthew, Jesse  
Mühlethaler, Th., Ltd.  
Pasquale, S. F. de, & Fratelli  
Poppelreuter, W.  
Ransom, W., & Son  
Roure-Bertrand fils  
Sachse, E., & Co.  
Scheller, Emil, & Co.  
Schimmel & Co.  
Schmoller & Bompard  
Spencer, J., Son & Co.  
Stevenson & Howell, Ltd.  
Todd, A. M., Co.  
Wright, Layman & Umney  
Zimmermann, A. & M.

**OILS, FATTY, ETC.**

Allen, Stafford, & Sons, Ltd.  
Price's Patent Candle Co.  
Smith, B. A., & Co.

**OILS, MINERAL**

Price's Patent Candle Co.

**ointments**

Blackie, R.  
Chemist's Co-operative Wholesale  
Oldfield, Pattinson & Co.

**OPTICAL GOODS**

Botwright & Grey  
Darton, F., & Co.  
Maw, S., Son & Sons  
Newbery, F., & Sons, Ltd.  
Nitsche & Günther  
Raphael's, Ltd.

**OPTICAL INSTRUCTION**  
British Optical Institute**ORANGE WINE**  
Melrose-Drover Co., Ltd.

**OTTO OF ROSE**  
Bontcheff & Kidoff  
Pappazoglou, D.  
Reitmeyer & Co. (synthetic)  
Scheller, Emil & Co.  
Seraphimoff, S., & Co.  
Shipkoff & Co.

**PACKED GOODS**  
(See WHOLESALE)**PALATINOLIDS**  
Oppenheimer, Son & Co.

**PASTILLES**  
Allen & Hanburys, Ltd.  
Asche, C. F., & Co.  
Burroughs Wellcome & Co.  
Denoual, J., & Co.  
Evans Sons Lescher & Webb  
Meggeson & Co., Ltd.  
Warrick Bros.

**PATENT AGENT**  
Barker, R. W.

**PERFUMES**  
Allen & Hanburys, Ltd.  
Barclay & Sons, Ltd.  
Bredenbach & Co.  
Bronnley, H., & Co., Ltd.  
Bush, W. J., & Co., Ltd.  
Christy, T., & Co.  
Chuit, Naef & Co.  
Erasmo Co., Ltd.  
Evans Sons Lescher & Webb, Ltd.  
Hewlett, C. J., & Son  
Hovenden, R., & Sons, Ltd.  
Lescol Perfumery Co.  
McCracken, J. & R.  
Maw, S., Son & Sons  
Newbery, F., & Sons, Ltd.  
Quelch, H. C., & Co.  
Southall Bros. & Barclay  
Spencer, J., Son & Co.  
Warrick Bros.  
West, T., & Son  
Yardley & Co., Ltd.

**PERFUME MATERIALS**

Bontcheff & Kidoff  
Bush, W. J., & Co., Ltd.  
Chiris, Antoine  
Compagnie Morana  
Lautier Fils  
Mühlthaler, Th., Ltd.  
Murray, O., & Co., Ltd.  
Scheller Emil & Co.  
Simmel & Co.  
Shipkoff & Co.  
Spencer, J., Son & Co.  
Zimmermann, C., & Co.

**PESSARIES**

Burge, Warren & Ridgley  
Rendell, W. J.

**PETROLEUM EMULSION**  
British Drug Houses, Ltd.**PETROLEUM JELLY**  
Chesebrough Mfg. Co.

**PHOTO. CHEMICALS**  
Boehringer, C. F., & Soehne  
Burroughs Wellcome & Co.  
Merck, E.

**PHOTO. ENLARGERS,  
PRINTERS, &c.**  
Express Developing Co.  
Halifax Photographic Co.

**PHOTO. GOODS**  
Barclay & Sons, Ltd.  
Darton, F., & Co.  
Evans Sons Lescher & Webb  
Halifax Photographic Co.  
Ilford, Ltd.  
Lennon, Ltd.  
May, Roberts & Co.  
Murdoch, John, & Co.  
Newbery, F., & Sons, Ltd.

**PILL MAKERS**

Allen & Hanburys, Ltd.  
Asche, C. F., & Co.  
Bishop, Alfred, Ltd.  
British Drug Houses, Ltd.  
Cox, A. H., & Co., Ltd.

**PILL MAKERS (continued)—**

Davies, Sons & Co.  
Evans Sons Lescher & Webb, Ltd.  
Hewlett, C. J., & Son  
Howards & Sons, Ltd.  
Lloyd, T. Howard, & Co.  
McKesson & Robbins  
Parke, Davis & Co.  
Standard Tablet & Pill Co.  
Wand Mfg. Co.  
Woolley, J., Sons & Co., Ltd.

**PLASTERS**

Allcock Mfg. Co.  
Berliner, Arthur  
Beiersdorf, P., & Co.  
Dalmas, A. de St., & Co.  
Leslies, Ltd.  
Maw, S., Son & Sons  
Solport Bros.

**PLASTIC MODELS**  
Plastic Advertisement Co.

**POLISHES (VARIOUS)**  
Bradley & Bourdas  
Judson, Daniel, & Son  
Oakley, J., & Son, Ltd.

**POSTERS**

Ford, Shapland & Co.

**PRINTERS**

Dudley & Co.  
Ford, Shapland & Co.  
Harrison & Waide  
Parkes, John, & Co.  
Smith, W. H., & Son  
Townsend, J., & Sons

**PROPRIETARY ARTICLES**

American Drug Stores  
Anglo-American Drug Co.  
Ashton & Parsons, Ltd.  
Atkinson & Barker  
Barclay & Sons, Ltd.  
Battie, Son & Maltby  
Beecham, T.  
Beiersdorf, P., & Co.  
Box, W. H.  
British Drug Houses, Ltd.  
Burgess, E.  
Capsuloids (1909), Ltd.  
Christy, T., & Co.  
Coleman & Co., Ltd.  
Congreve, G. T.  
Cox, A. H., & Co., Ltd.  
Curry, Henry  
Daggett & Ramsdell  
Daisy, Ltd.  
Davenport, J. T., Ltd.  
Day & Sons (Crews), Ltd.  
Day, Son & Hewitt  
Denoual, J., & Co.  
Edwards, W., & Son  
Elliman, Sons & Co.  
Evans Sons Lescher & Webb  
Faulding, F. H., & Co.  
Fellows' Syrup  
Fennings, Alfred  
Ferris & Co.  
Fulford, C. E., Ltd.  
Goodall, Backhouse & Co.  
Grapelax, Ltd.  
Gutmann's Successors  
Guy's Tonic Co.  
Henry, T. & W.  
Himrods Asthma Cure  
Hovenden, R., & Sons, Ltd.  
Hughes, E. Griffiths  
Ichthyol Co.  
International Chemical Co.  
Iron-Ox Rem. Co., Ltd.  
Kay Bros., Ltd.  
Kutnow, S., & Co., Ltd.  
Lalor's, Dr., Phosphodyne  
Lambert Pharmacal Co.  
Lofthouse & Saltmer  
Lorimer & Co., Ltd.  
May, Roberts & Co.  
Menley & James, Ltd.  
Newbery, F., & Sons, Ltd.  
Odol Chemical Works  
Owbridge, W. T., Ltd.  
Pedezy Co.  
Resinol Chemical Co.  
Sangers'  
Simmel & Co.  
Scott & Bowne, Ltd.  
Squire & Sons  
Standard Tablet & Pill Co.  
Stedman's Teething Powders  
Thermogene Co., Ltd.  
Thompson & Capper  
Wilcox, Jozeau & Co.  
Zotos, Ltd.

(See also DENTIFRICES and TOILET  
ARTICLES)

**PULVELLÆ**

Warrick Bros.

**PULVERETTES**

Oppenheimer, Son & Co., Ltd.

**PUMPS**

Berkefeld Filter Co., Ltd.

**QUININE AND SALTS**

Boehringer, C. F., & Soehne  
Howards & Sons, Ltd.  
Pointnet & Girard

**RAPE OILS**

Hull Oil Mfg. Co.

**RAZORS**

Auto-Strop Safety Razor Co.  
Gillette Safety Razor, Ltd.  
Hovenden, R., & Sons, Ltd.

**RENNET**

Fullwood, R. J., & Bland  
Oldfield, Pattinson & Co.

**RESINS AND RESINOIDS**

Allen, S., & Sons, Ltd.  
Allen & Hanburys, Ltd.  
Morson, T., & Son  
Ransom, W., & Son  
Smith, T. H., Ltd.

**RESPIRATORS**

Zimmer & Co.

**RUBBER GOODS**

Burge, Warren & Ridgley, Ltd.  
Davol Rubber Co.  
Evans Sons Lescher & Webb, Ltd.  
Fecher, M. J.  
Galen Mfg. Co.  
Hatrik, James L., & Co., Ltd.  
Haywood, J. H.  
Hovenden, R., & Sons, Ltd.  
Hutchinson Co.  
Maw, S., Son & Sons  
May, Roberts & Co.  
Wagklyn, H. A.  
Warne, W., & Co., Ltd.

**SACCHARIN**

Saccharin Corporation, Ltd.

**SALICIN**

Macfarlan, J. F., & Co.  
Smith, T. H., Ltd.

**SAMPLE CASES**

Keane, Thomas

**SANTONIN**

Smith, B. A., & Co.

**SAPONIN**

Field, C. W.  
Sthamer, Dr. R.

**SAUCES**

Goodall, Backhouse & Co.

**SCALE PREPARATIONS**

Morson, T., & Son

**SEA SALT**

Tidman & Son, Ltd.

**SEA-SICKNESS REMEDY**

Zotos, Ltd.

**SELTZOGENES**

Aerators, Ltd.

**SERUMS AND ANTITOXINS**

Allen & Hanburys, Ltd.  
Evans Sons Lescher & Webb  
Parke, Davis & Co.  
Simmel & Co.  
Wilcox, Jozeau & Co.

**SHARES**

McAdam & Tuckniss

**SHEEP-DIPS**

Burt, Boulton & Haywood  
Sanitas Co., Ltd.  
Tomlinson & Hayward, Ltd.

**SHOP-FITTING**

Ayrton-Graham, Ltd.  
Bowling Son  
Evans Sons Lescher & Webb, Ltd.  
Josephs, P., & Son  
Maw, S., Son & Sons  
Mills, H.  
Parnall & Sons, Ltd.  
Rudduck & Co.  
Sangers'  
Southall Bros. & Barclay, Ltd.

**SOAP MATERIALS**

Armour & Co., Ltd.  
Chiris, Antoine

**SOAPS**

Allen & Hanburys, Ltd.  
Armour & Co., Ltd.  
Bredenbach & Co.  
Bronnley, H., & Co., Ltd.  
Chesebrough Mfg. Co.  
Cook, E., & Co., Ltd.  
Erasmo Co., Ltd.  
Hull Oil Mfg. Co., Ltd.  
Lescol Perfumery Co.  
Oakley, J., & Son, Ltd.  
Pears, A. & F., Ltd.  
Price's Patent Candle Co.  
Shaw, Henry, & Co.  
Wright, Layman & Umney

**SOAPS, MEDICATED**

Armour & Co., Ltd.  
Bronnley, H., & Co., Ltd.  
Calvert, F. C., & Co.  
Lambert Pharmacal Co.  
Resinol Chemical Co.  
Wright, Layman & Umney

**SOCKS**

Davis, J. M., & Sons

**SODA FOUNTAINS**

British Automatic Aerators, Ltd.

**SODIUM BICARBONATE**

Brunner, Mond & Co., Ltd.  
Howards & Sons, Ltd.  
Mumford, G. S.

**SOYA OIL**

Hull Oil Mfg. Co.

**SPARKLETS**

Aerators, Ltd.

**SPECTACLES**

Botwright & Grey  
Darton, F., & Co.  
Maw, S., Son & Sons  
Nitsche & Günther  
Raphael's, Ltd.

**SPHYGMOMETERS**

Hicks, J. J.

**SPIRIT OF WINE**

Burrough, J., Ltd.  
Preston's Liverpool Distillery

**SPITTING-FLASKS**

Maw, S., Son & Sons

**SPONGE BAGS**

Maw, S., Son & Sons  
Schutze, F., & Co.  
Toogood, W., Ltd.

**SPONGE STANDS**

Wanklyn, H. A.

**SPONGES**

Internatl. Sponge Importers  
Kent, G. B., & Sons, Ltd.  
Maw, S., Son & Sons  
Sangers'

**SPONGES, RUBBER**

Wanklyn, H. A.

**SPONGIO-PILINE**

Whitehead, R. R., & Bros.

**SPRAYS**

Burge, Warren & Ridgley, Ltd.  
Cook, Alfred, & Co.  
Davol Rubber Co.  
Hovenden, R., & Sons, Ltd.  
Maw, S., Son & Sons  
May, Roberts & Co.  
Parke, Davis & Co.

**STAIN REMOVERS**

Hammond Mfg. Co.

**STARCH**

Mumford, G. S., & Sons

**STILLS, ESSENTIAL OIL**

Bennett, Sons, & Shears, Ltd.

**STOPPERS**

Fletcher, Fletcher & Co.

Stipendium Stopper Co.

**STOVES, HEATING**

Clark, S., & Co.

**SUPPOSITORIES**

Cox, Arthur H., & Co.

**SURGICAL APPLIANCES**

Allen & Hanburys, Ltd.  
Bailey, W. H., & Son  
Burroughs Wellcome & Co.  
Hatrik, James L., & Co., Ltd.  
Maw, S., Son & Sons  
Quelch, H. C., & Co.  
Stuart Plaster Pad Co.  
Wood, Vincent  
Warne, W., & Co., Ltd.

**SURGICAL DRESSINGS**

Beiersdorf, P., & Co.  
Berliner, Arthur  
Burroughs Wellcome & Co.  
Dalmas, A. de St., & Co.  
Galen Mfg. Co., Ltd.  
Gimber, W., & Son  
Gutmann's Successors  
Hatrik, James L., & Co., Ltd.  
Haynes, G., & Co.  
Leslies, Ltd.  
Liverpool Lint Co.  
Macfarlan, J. F., & Co.  
Maw, S., Son & Sons  
Newsome, C.  
Robinson & Sons, Ltd.  
Southall Bros. & Barclay  
Thermogene Co., Ltd.  
Vernon & Co., Ltd.  
Wood, Vincent  
Woolley, J., Sons & Co., Ltd.

**SWIMMING FLOATS**

Schutze, F., & Co.



**SYNTHETIC REMEDIES**

Boehringer, C. F., & Soehne  
Boehringer, C. H., Sohn  
Hoffmann-La Roche, Ltd.  
Reitmeyer & Co.

**SYNTHETIC PERFUMES**

Boehringer, C. F., & Soehne  
Bush, W. J., & Co., Ltd.  
Chuit, Naef & Co.  
Compagnie Morana  
Murray, O., & Co., Ltd.  
Reitmeyer & Co.

**SYPHONS,**

Aerators, Ltd.  
Barnett & Foster  
Brefitt, E., & Co., Ltd.  
Camwal, Ltd.  
Idris & Co., Ltd.

**SYRUPS, MEDICINAL**

Chemist's Co-operative Wholesale  
Fellows' Med. Mfg. Co.  
Fletcher, Fletcher & Co.  
Squire & Sons

**TABLETS, COMPRESSED**

Allen & Hanburys, Ltd.  
Asche, C. F., & Co.  
Bishop, Alfred, Ltd.  
British Drug Houses, Ltd.  
Cox, A. H., & Co., Ltd.  
Davies, Sons & Co.  
Duncan, Flockhart & Co.  
Evans Sons Lescher & Webb  
Howards & Sons, Ltd.  
Jackson, E. E.  
Lloyd, T. Howard, & Co.  
Parke, Davis & Co.  
Potter & Clarke  
Standard Tablet & Pill Co.  
Thompson & Capper  
Wand Manufacturing Co.  
Wander, A.

**TABLOID PRODUCTS**

Burroughs Wellcome & Co.

**TARTARIC ACID**

British Drug Houses, Ltd.  
Boehringer, C. H., Sohn

**TELEPHONE CAPS**

Jeyes Sanitary Compound Co., Ltd.

**TELESCOPES**

Darton, F., & Co.

**TIN BOX MAKERS**

Goodall, Backhouse & Co.  
Huntley, Boorne & Stevens

**TOBACCO**

"Pinoza" Depot  
Singleton & Cole, Ltd.

**TOFFEE**

Meggesson & Co., Ltd.

**TOILET PAPER**

Ford, Shapland & Co.  
Newbery, F., & Sons, Ltd.  
Townsend, J., & Sons

**TOILET ARTICLES**

Allen & Hanburys, Ltd.  
Armour & Co., Ltd.  
Auto-Strop Safety Razor Co.  
Beetham, M., & Son  
Berliner, Arthur  
Blackie, R.  
Breidenbach & Co.  
Bronnley, H., & Co., Ltd.  
Burroughs Wellcome & Co.  
Chesebrough Mfg. Co.  
Christy, T., & Co.  
Cook, E., & Co., Ltd.  
Daggett & Ramsdell  
Daisy, Ltd.  
Edwards' Harlene Co.  
Erasmie Co., Ltd.  
Eucriyl, Ltd.  
Hall & Ruckel  
Harker, Stagg & Morgan  
Hovenden, R., & Sons, Ltd.  
John Strange Winter  
Lloyd, A., & Co.  
Lloyd, A. S. (Hovenden)  
Lorimer & Co., Ltd.  
Newbery, F., & Sons, Ltd.  
Odol Chemical Works  
Papier Poudre, Ltd.  
Parke, Davis & Co.  
Pharmazeutische - Industrie  
Gesellschaft (Offenbach)  
Pierre, Dr.  
Quelch, H. C., & Co.  
Reuter, R. J.  
Rowland, A., & Sons  
Sangers  
Sanitas Co., Ltd.  
Shaw, Henry, & Co.  
Standard Tablet & Pill Co.  
Toogood, W., Ltd.  
Velvix Toilet Co.  
Woolley, J., Sons & Co., Ltd.

**TOOTH-BRUSH CASES**

Southall Bros. & Barclay, Ltd.

**TOOTH STOPPING**

Stevens, P. A.

**TRADE-MARKS AGENTS**

Barker, R. W.  
Ford, Shapland & Co.

**TRUSSES**

Bailey, W. H., & Son  
Haywood, J. H.  
Wood, Vincent  
Woolley, J., Sons & Co., Ltd.

**TUBES, COLLAPSIBLE**

Lumley, L., & Co., Ltd.

**TUBED SPECIALITIES**

Christy, T., & Co.  
Sangers

**TURNED WOOD BOTTLES**

AND BOXES  
May, Roberts & Co.

**VACCINES**

Allen & Hanburys, Ltd.  
Evans Sons Lescher & Webb

**VALUERS**

Alexander, H. P.  
Baker, P. C.  
Berdoo & Fish  
Brett & Co.  
Orridge & Co.  
Tomlinson, T., & Son

**VASELINE**

Chesebrough Mfg. Co.

**VERMIN-KILLERS**

Battle, Son & Maltby  
Evans Sons Lescher & Webb, Ltd.  
Farmer, F., & Co.  
Harker, Stagg & Morgan  
Kay Bros., Ltd.  
Sanford & Son

**VETERINARY MEDICINES**

Chesebrough Mfg. Co.  
Day & Sons (Crewe), Ltd.  
Day, Son & Hewitt  
Edwards, W., & Son  
Elliman, Sons & Co.  
Harvey & Co., Ltd.  
James, F.  
John, H. C.  
Lloyd, T. H., & Co.  
Tomlinson & Hayward, Ltd.  
Walker, Troke & Co.  
Wand Mfg. Co.  
Wilson Vet. Mfg. Co.  
Young, W. F.

**VINEGAR**

Grimble & Co.

**WATERS, CONCENTRATED**

Chemist's Co-operative Wholesale  
Robinson, E., & Co., Ltd.

**WEED-KILLERS**

Burt, Boulton & Haywood  
Tomlinson & Hayward

**WHOLESALE DRUGGISTS**

Allen & Hanburys, Ltd.  
Alliance Drug & Chem. Co.  
Ayrton, Saunders & Co.  
Baiss Bros. & Stevenson, Ltd.  
Bell, John, Hills & Lucas, Ltd.  
Blackie, R.  
British Drug Houses, Ltd.  
Chemist's Co-operative Wholesale  
Evans Sons Lescher & Webb  
Ferris & Co.  
Goodall, Backhouse & Co.  
Harker, Stagg & Morgan  
Hewlett, C. J., & Son  
Horner & Sons  
Lennon, Ltd.  
Lloyd, T. Howard, & Co.  
Lofthouse & Saltmer  
Murdoch, John, & Co.  
Oldfield, Pattinson & Co.  
Potter & Clarke  
Raimes & Co.  
Southall Bros. & Barclay  
Willows, Francis B. & T.  
Woolley, J., Sons & Co.  
Woolleys, Ltd.  
Wright, Layman & Umney

**WINES**

Burrough, J., Ltd.  
Millar, A., & Co., Ltd.  
Robinson, B., & Co., Ltd.

**WINES, MEDICATED**

Burrough, J., Ltd.  
Coleman & Co., Ltd.  
Fletcher, Fletcher & Co., Ltd.

**ZINC OXIDE**

Baiss Bros & Stevenson  
Hubbuck, T., & Son, Ltd.

OLDFIELD, PATTINSON &amp; CO.

MANCHESTER.

TELEGRAMS :

"OPIUM. MANCHESTER."

A RELIABLE HOUSE FOR  
**All Pharmaceutical Preparations.**CONCENTRATED WATERS.  
CONCENTRATED INFUSIONS.**Syr. Hypophosphites Co. (NEWTON)**ELIXIR TERPINI ET HEROIN COMP.  
THYMOLYPTOL.**Syr. Glycerophosph. Co.**LIQUID EXTRACTS.  
LEVIGATED OINTMENTS.  
ESSENTIAL OILS.**"Silver Churn" Dairy Specialities.**

Special Prices to Large Buyers.

Write for List.

# REMAINING BARGAINS

... OUT OF ...

## ALFRED COOK & CO.'S

(ENFIELD)

### Special Druggists' Sundries Sale.

500 gross 2 dr. Corn Solvent Bottles with Box Tops and Brushes ...	...	...	Fig. 31/32, @ 6/- gross.
Ditto with Glass Legs ...	...	...	@ 5 9 "
100 gross Nickel Cap Pill Tubes ...	...	...	Fig. 23, 1 dr. @ 3 6 "
50 gross Graduated Medicine Tumblers, 4 table spoons, 3 qualities ...	...	...	14/-, 18/-, and 21/- "
100 gross Glass Syringes ...	...	...	Fig. 117, 6 6 8 6 15/- 26/- "
10 gross Glycerine Syringes ...	...	...	Fig. 131, 4 6 4 9 6 6 14/- doz.
10 gross Douche Cans, complete with Tubing ...	...	...	Fig. 137, 17/- 18/- 20/- 22/- "
10 gross Black Warranted Enemas, boxed ...	...	...	@ 12/- "
5 gross Breast Relievers, 1½ oz. with Red Ball ...	...	...	Fig. 165, @ 8 6 "
5 " Ditto 2 oz. with Black and Green Ball ...	...	...	Fig. 166, @ 10 9 "
20 gross Nasal Glass Irrigators, boxed ...	...	...	Fig. 75, @ 1 10 "
4 gross P.S. Injection Enema Syringes ...	...	...	Fig. 132, finest quality, 8 6 12/- 15/- 18/- "
3 gross Back Flow Urethra Syringes ...	...	...	Fig. 121, @ 6 6 "
20 gross Red P.S. Syringes ...	...	...	Fig. 124, 3/- 3 3 3 6 4 6 "
100 pairs Grey and White Elastic Stockings ...	...	...	@ 2 6 pair.
10 gross 8 in. Wood Indoor Thermometers, 6d. carded... ..	...	...	Fig. 91, 2 9 doz.
5 gross 8 in. and 9 in. assorted, 1" size, carded... ..	...	...	Fig. 90, 6/- "
3 gross ½ and 1 mm. best German Clinical Thermometers ...	...	...	Fig. 86, 6/- "
12 dozen Photographic Scales in Oak Boxes (splendid value) ...	...	...	... 6/- "
12 gross Open Back 1/- Tooth Brushes ...	...	...	Fig. 116, 3/- "
100 gross Stout Transparent Teats ...	...	...	No. 1 2 3 full sizes. 6/- 7/- 8/- gross.
600 gross Ditto Black ...	...	...	No. 1 Light 1 Stout 2 Stout 2 8 4/- 4 6 gross.
50 gross each Transparent Hygienic Feeder Teats ...	...	...	Fig. 213B 13/- "
Ditto Feeder Valves ...	...	...	" 214 10/- "
50 gross each ditto, Black Teats ...	...	...	" 10 9 "
Ditto Feeder Valves ...	...	...	" 7/- "
20 gross Heavy Moulded Hygienic Valves, Black ...	...	...	Fig. 216 12/- "
20 gross Hygienic Feeders with Transparent Teats and Valves ...	...	...	Fig. 211, boxed 48/- "
20 gross ditto with Black Teats and Valves ...	...	...	Fig. 211 42/- "
20 gross Ordinary Bent Screw Neck Feeders, with Black Fittings ...	...	...	Fig. 205, 1 doz. in box 29/- Ea. in box 38/- gross.
150 gross Soothers, assorted... ..	No. 287A	288 289 291 295 296 298	
With Black Teats ...	5 -	5 6 6 - 7 - 12 6 12 - 15 -	
With trans. " ...	7 -	7 6 8 - 9 - 14 - 13 6 17 -	
With Black Teats ...	...	...	No. 301.
With trans. " ...	...	...	22/- gross. 24/- "

Prices are less 2½ per cent. for Cash with Order or Nett 7 days. Carriage paid on £4 value. Illustrations and Special List of a few more remainders sent on application.



# THERMOGÈNE

(ABSORBENT WADDING)

## WINDOW DISPLAYS

We are now prepared to accept orders, upon the terms set out below, from those Chemists who, in return, are prepared to give us a portion of window space for the display of a limited number of Dummies (for a few weeks) during the Autumn and Winter. It must be clearly understood that the bonus packets are supplied in return for such display.

**ALL Goods CARRIAGE FORWARD.**

<u>BUYING PRICE.</u>		<u>SELLING PRICE.</u>	
6 doz. $1/1\frac{1}{2}$ @ 9/6	£2 17 0	7 doz. @ 1/-	£4 4 0
1 doz. bonus			
Less 5% ...	2 10		
Case (not returnable)	6		
	<u>2 14 8</u>		<u>4 4 0</u>

<u>BUYING PRICE.</u>		<u>SELLING PRICE.</u>	
3 doz. $1/1\frac{1}{2}$ @ 9/6	£1 8 6	$3\frac{1}{2}$ doz. @ 1/-	£2 2 0
$\frac{1}{2}$ doz. bonus			
	<u>1 8 6</u>		<u>2 2 0</u>

THE THERMOGÈNE CO., LTD., 3 Hayward's Heath, Sussex  
or  
FASSETT & JOHNSON, 32 Snow Hill, London, E.C.

**MUTER'S SCHOOL OF PHARMACY**

OPEN ENTRANCE SCHOLARSHIP EXAMINATION,

SEPTEMBER 2 and 3.

EXTENDED WINTER TERM ... SEPTEMBER 8.

FEE until the January Examinations £9 9 0

WINTER TERM ... OCTOBER 4.

FEE until the January Examinations £8 8 0

EVENING CLASSES start October 4, and are continued on Mondays, Wednesdays, and Fridays, from 7 p.m. to 9 p.m. throughout the term.

**Increased Facilities for Practical Work.**Special engagement of **MR. OTTO CUTRESS**, in addition to present staff.For full particulars of Day and Evening Classes, and Syllabus, apply—  
The SECRETARY, 325 KENNINGTON ROAD, LONDON, S.E.**NORTH OF ENGLAND SCHOOL  
OF CHEMISTRY AND PHARMACY,**

55 Northumberland St., Newcastle-on-Tyne.

Principal: J. STABLEFORD HILL, Ph.C.

Thorough Preparation for MINOR, MAJOR, and APOTHECARIES' HALL EXAMINATIONS.

**FEES MODERATE & INCLUSIVE**

Short Course for October Examination commenced MONDAY, AUGUST 16th.

Winter Term commences OCTOBER 4th.

Early Application should be made to the PRINCIPAL.

**Northern College of Pharmacy.**

100 &amp; 102 Burlington Street, Manchester.

PRINCIPALS: GEO. CLAYTON, F.C.S., Ph.C.; F. LAWSON, B.Sc., Ph.C.

Every Student taking a Course at the "Northern" can rely on THOROUGH PREPARATION and at the end CERTAIN SUCCESS.

ENTRIES ARE NOW BEING RECEIVED FOR THE NEXT TERM.

The FULL TIME COURSE commenced on September 1, 1909; the SPECIAL REVISION COURSE for October Examination on August 23. The EVENING COURSE resumes on September 7, and the TUESDAY COURSE resumes on September 7, and the WEDNESDAY COURSE on September 8.

Intending Students are requested to communicate as early as possible. Prospectus posted to any address.

**BOOKS FOR THE MINOR.**

Clayton's Qualitative Analysis,	Lawson's Volumetric Analysis,
2s. 6d.	2s. 6d.
.. Organic Chemistry Notes,	.. Materia Medica, 2s. 6d.
2s. 6d.	.. Examination Dispensing,
.. Prescription Reading,	1s. 6d.
2s. 6d.	

**South of England College of Pharmacy.**  
(Concilio et labore.)  
186 CLAPHAM ROAD, LONDON, S.W.

Principal—H. LUCAS, Ph.C., F.C.8.

Assistant Master—T. W. ATTENBOROUGH, Ph.C. Demonstrator—J. S. WHITE, M.P.S.

RESULTS during the past eighteen months: 76 pupils have been successful from this College.

SPECIAL NOTICE.—A "Major" Course has been arranged for the Winter Evenings, commencing October 4, on Monday, Wednesday and Thursday evenings, 6.30-9 p.m. thus preparing for the examination inexpensively. Apply early for benches.

DAY CLASSES for Minor and Apothecaries' Hall commence October 1st.

EVENING CLASSES for Minor commence October 4th. Fees from 1 guinea per term.

For further particulars apply THE PRINCIPAL.

**LONDON COLLEGE  
of CHEMISTRY, PHARMACY, and BOTANY.**Principals: { HENRY WOOTTON, B.Sc. (Lond.)  
ARTHUR KIRKLAND, Ph.C.

Systematic Courses of Lectures, Classes, and Practical Work in Preparation for the Pharmaceutical Examinations.

MINOR—The NEXT COMPLETE COURSE of Lectures, Classes, and Practical Work for MINOR Students begins on SEPTEMBER 6th.

MAJOR—FULL SIX MONTHS' COURSE in preparation for the APRIL Examination commences OCTOBER 6th.

APOTHECARIES' HALL COURSE, OCTOBER 28th.

PRELIMINARY COURSE, SEPTEMBER 22nd.

EVENING CLASSES (MINOR), OCTOBER 7th.

Entries for these Classes may now be received.

For Prospectus, &amp;c., apply to—

The SECRETARY, London College of Chemistry & Pharmacy,  
323 CLAPHAM ROAD, LONDON, S.W.**LEEDS COLLEGE OF PHARMACY.**

Principal: F. PILKINGTON SARGEANT.

MAGNIFICENT PREMISES.

ABSOLUTELY PERSONAL ATTENTION.

MODERATE AND INCLUSIVE FEES.

Prospectus and all Particulars on Application.

WINTER SESSION COMMENCES OCTOBER 12, 1909.

OPTICAL CORRESPONDENCE CLASS.

SARGEANT'S ORGANIC CHEMISTRY, 2/- nett, for "Minor" Students.

**THE  
Manchester College of Pharmacy.**DIRECTOR: 225a & 227a Oxford Road,  
Mr. CHARLES TURNER, F.C.S., Ph.C., M.P.S.  
Analytical Chemist.  
MANCHESTER.

The Next Term will begin on Monday, October 4th.

All the work is thoroughly done, and no pains are spared to make each student absolutely familiar with the various arts and sciences which constitute the special equipment of the modern pharmacist, not only when he faces the examiners, but also in his subsequent career. Details of the Classes, Lectures, Practical Work, &amp;c., are given in the illustrated prospectus, which will be sent post free on application.

**NOTTINGHAM SCHOOL OF PHARMACY**Carlton Chambers,  
13 Victoria Street, Nottingham.

Principal - - S. ROYCE, Ph.C.

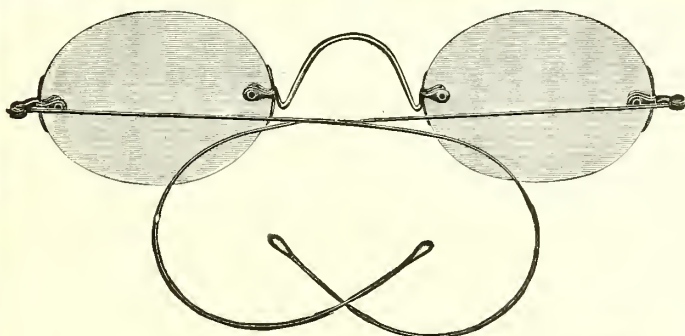
New Term commenced Sept. 1st.

Fee to Christmas .... £9 9 0

Passes in Session 1908-9 62 per cent.

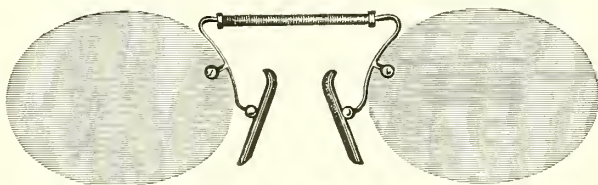
For Prospectus, &amp;c., POST FREE, write to the Principal.



**F. DARTON & CO.,** *Manufacturing Opticians, : :*142 ST. JOHN STREET & 52 Clerkenwell Road,  
LONDON, E.C.**Special Lines in  
Rimless Spectacles &  
Eye-glasses***In Gold, Gold Filled, Nickel,  
and Steel.*

Samples &amp; quotations sent on application.

Price Lists of MOTOR GOGGLES,  
CYCLIST GOGGLES, AND  
TINTED SPECTACLES, &c.,  
sent post free on receipt of  
Trade Card.

**HEALING OINTMENT** For DOGS  
and CATS

Cures Mange, Eczema, Itching, Skin Irritation,  
Wounds, Canker of the Ear, Burns and Scalds.

FOR TERMS AND SAMPLES APPLY—

**F. JAMES, 169 Junction Road, LONDON, N.****COUNTY BOROUGH OF WEST HAM.**

Municipal Technical Institute, Romford Rd., Stratford, E.

Classes in Pharmacy and Materia Medica, to commence on  
September 27, for Apothecaries Hall and Pharmaceutical Minor  
Examinations, are held on Monday and Wednesday evenings at  
the West Ham Municipal Technical Institute (close to Maryland  
Point Station, G.E.Rly.) Further particulars may be obtained  
from the Principal, ALEX. F. HOGG, M.A.

27th August, 1909.

**FRED. E. HILLEARY**, Town Clerk.*Express Developing Co.*

(REGISTERED.)

Telephone Number : LONDON WALL 4793.

OUR  
ANNOUNCE-  
MENTS WILL  
APPEAR IN  
THE  
FIRST ISSUE  
OF EVERY  
MONTH.

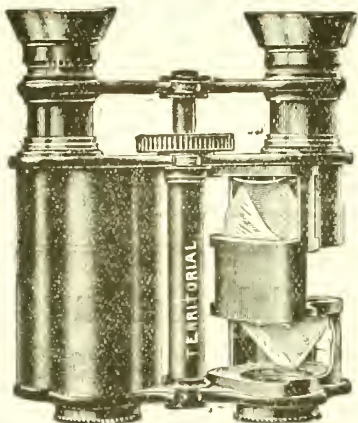
**THE TRADE HOUSE FOR PHOTO ENLARGEMENTS AND COLOURED MINIATURES.****WE CATER EXCLUSIVELY FOR CHEMISTS.**

Their requirements are our special study.

**Roll Films developed and despatched day after receipt.****CARBONS.****PRINTING IN ALL PROCESSES.****POSTCARDS.**

WRITE FOR PRICE LIST AND PARTICULARS OF OUR PROFITABLE SIDE LINES.

**EXPRESS DEVELOPING CO., 86 High Street, Whitechapel, E.C.**




# THE "TERRITORIAL" PRISM BINOCULAR.

Registered No. 303455.

**BENDING BARS,  
SCREW FOCUSING ADJUSTMENT,  
INDEPENDENT FOCUSING EYEPIECE,  
MAGNIFYING 8x.  
SOLID ENGLISH LEATHER CASE.**

Retail Price, 84/-  
TRADE PRICE ON APPLICATION.

 Any Chemist-Optician not stocking this should  
write for one on approval!

TO BE OBTAINED FROM ANY WHOLESALE OPTICIAN, OR

# RAPHAEL'S

LIMITED.

57b & 57c HATTON GARDEN, LONDON, E.C.

## LENS MEASURE

FOR MEASURING

Spherical and Cylindrical Lenses.

Price **17/6** each post free.

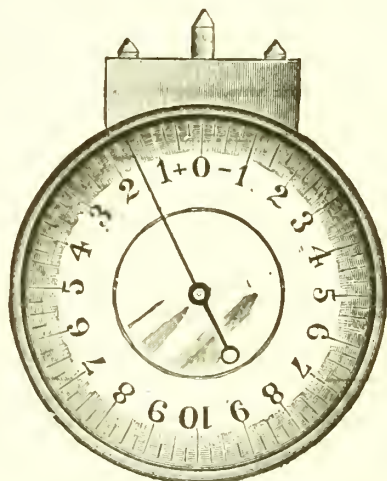


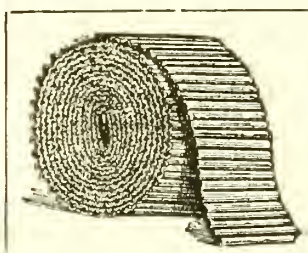
Illustration shows instrument exact size.

Manufactured and Sold by—

### BOTWRIGHT & GREY,

Spectacle and Eyeglass Makers,

13 & 14 Spencer Street, Clerkenwell,  
LONDON, E.C.



Telephone No. :  
8647 Central.

Telegrams :  
"Eburitico London."  
A.B.C. Code used.

Apply to—

## EBURITE PAPER CO.

LIMITED,

DANE ST., HIGH HOLBORN, LONDON, W.C.

CHEAPEST and LARGEST MAKERS of

## Corrugated Papers

In rolls and cut sizes, Cartons,  
Boxes, and Cylinders, &c.

### SAFEST for PACKING.

BEST QUALITY.

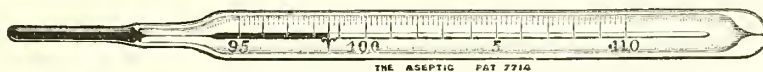
PROMPT DELIVERY

Enquiries invited.



# MAW'S Aseptic Clinical Thermometer

(PATENT).



**I**T is generally conceded that the surface markings of the ordinary form of Clinical Thermometer, unless very carefully and constantly cleansed after use, are liable to carry infection. This constant cleansing in time tends to obliterate the markings, and thus renders the thermometer useless.

S. MAW, SON & SONS have now produced a thermometer, at a reasonable price, which overcomes these defects.

The Thermometer in question consists of an engraved tube enclosed in an outer glass covering free from all markings and indentations. Any fear of infection is by this means eliminated, and the scale is at the same time rendered indestructible. In addition it has the advantage of being less fragile than the ordinary form of thermometer, and lighter to hold in the patient's mouth.

## PRICES:

2-3 minutes magnifying	.	per doz.	13 6
60 seconds	„	„	17 0
30 „	„	„	19 6

**GUARANTEED TO PASS THE KEW STANDARD.**

# S. MAW, SON & SONS,

7-12 ALDERSGATE STREET, LONDON, E.C.

Telegrams: "ELEVEN LONDON."

Telephone: LONDON WALL 3230 (4 lines).

## ALMANACKS

FOR

1910.

SEND FOR SAMPLES.

JAMES TOWNSEND &amp; SONS,

Printers for Pharmacists,

EXETER AND LONDON.

ZEAL'S PATENT  
CLINICAL THERMOMETER  
The "REPELLO"

Requires no shaking down.

A 30-Second Pushed back in  
an instant. Guaranteed Accurate.Good Selling  
Lines for  
Chemists.

Send for list, post free.

G. H. ZEAL, 82 Turnmill St.,  
LONDON, E.C.

Wholesale Manufacturer of

CLINICAL THERMOMETERS.

A SELECTION OF 50 KINDS.

Established 1888.

Telephone No. 12438 Central.

## PITMAN'S PUBLICITY BOOKS.

**SALESMANSHIP.** A Practical Guide for Shop Assistant, Commercial Traveller, and Agent. By W. A. CORBION and G. E. GRIMSDALE. In crown 8vo. cloth gilt, 168 pp., 2s. 6d. net.**THE PRINCIPLES OF PRACTICAL PUBLICITY.** Being a Guide to "The Art of Advertising." By TRUMAN A. DE WEESE. In large crown 8vo. cloth gilt, with 43 Full-page Plate Illustrations, 7s. 6d. net.**THE THEORY AND PRACTICE OF ADVERTISING.** By W. DILL SCOTT, Ph.D. In large crown 8vo. cloth, with 61 Illustrations, 6s. net.**THE PSYCHOLOGY OF ADVERTISING.** A Simple Exposition of the Principles of Psychology in their Relation to Successful Advertising. By the same Author. In large crown 8vo. cloth, with 67 Illustrations, 6s. net.Write for a 16 pp. Specimen Page Prospectus to—  
SIR ISAAC PITMAN & SONS, LTD., 1 AMEN CORNER, E.C.

## SHOP FRONTS &amp; FITTINGS

FOR

## CHEMISTS and DRUGGISTS.

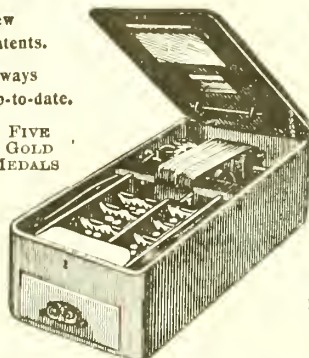
Inquiries invited.

Catalogues free on application to—

PARNALL & SONS, LTD., Narrow Wine St., BRISTOL.

LONDON: 10 Rood Lane, E.C.

SWANSEA: 12 Alexandra Road.

New  
Patents.  
always  
Up-to-date.FIVE  
GOLD  
MEDALS

O'BRIEN'S

Self-closing

THE STANDARD  
CHECK TILLS.

CHECK TILLS

Quickest, Safest, Best and Cheapest. Made in Solid Mahogany throughout.  
ALL THE LATEST and GREATEST IMPROVEMENTSTESTIMONIAL, 25th Feb., 1908.  
"I should like to express my entire satisfaction with the way in which the Till has served me. I have never had the least trouble with it, and practically it is as good as ever." (Signed) E. W. ROBERTS. (Till six years in use.)

PRICES FROM TWO-AND-A-HALF GUINEAS.

London Showrooms: 281 &amp; 282 High Holborn.

Send for Full  
Price List to

THOMAS O'BRIEN, Slater Street, Bold Street, LIVERPOOL.



# The National Cash Register Company, Ltd.

225 Tottenham Court Road, London, W.

## Great Reduction in Prices.

# Cash Registers from £4 upwards.

## Autographics, £1 to £6.

**Buy direct from us. We Pay no Commissions to Agents.**



Use a National Cash Register in your shop!  
It will save you money, mistakes it will stop,  
Protecting your Customers, trade will increase,  
Your time will be saved, and your worry decrease.

We accept monthly instalments if required.

Established 20 years.

Our Machines Guaranteed to be Cheaper and Better than any other make.

**New Machines at lower prices than those charged  
by other dealers for similar machines second-hand**

Write for particulars, or call at any of our Show Rooms and inspect our stock, where  
we have Cash Registers suitable for every class of shop, from the smallest to the largest.

**We are Exhibiting at The Imperial International  
Exhibition, Shepherd's Bush, London.**

**BRANCH OFFICES IN EVERY TOWN.**

## The 'VAMPIRE' and the 'FLYSAC.'



Send for samples. They carry our argument. Both annihilate flies, and both are hermetically sealed. With them there is no leakage, no risk, and no delay. The "VAMPIRE" sells on account of the novelty of its construction, the "FLYSAC" on account of its economy in use.

Prompt Deliveries. Big Profits. Quick Returns.

SOLE MAKERS:

**KAY BROS. Ltd., STOCKPORT.**

30 years' experience in the manufacture of Bird-limes and Flygums.



## NEW! THE PEOPLE'S FLYCATCHER.

Started late last season, nevertheless  
became THE Selling Flycatcher.

NO DRYING UP.

Ask for Free sample and quotation from patentee:

**C. FROWEIN, 43 BASINGHALL STREET, LONDON, E.C.**

P.S.—It will pay you to see my sample before ordering elsewhere.

## TUNBRIDGE & WRIGHT'S FLY CEMETERY.



The ORIGINAL and by far the  
BEST Sticky Fly Paper in the  
market.

Gives a Profit of 140 per cent.

WE HAVE REDUCED  
THE PRICE TO 5/- PER  
GROSS NET CASH  
WITH ORDER AND  
CARRIAGE PAID

## TUNBRIDGE & WRIGHT'S CEMETERY FLY TAPE.

To meet the demand for a Fly Tape (which under  
some conditions is more convenient than a Fly Paper),  
we have produced the Cemetery Fly Tape, which is  
strongly made and most efficacious.

6/6 per gross net cash with order,  
carriage paid.

MANUFACTURERS:

**TUNBRIDGE & WRIGHT,  
READING.**

London Depot: 12 LITTLE BRITAIN, E.C.

North of England Depot:

**4 GALLOWGATE, NEWCASTLE-ON-TYNE.**

Telegrams—"FLIES READING."

Telephone—496 READING.



PROTECTION!

FREE TRADE!

BY USING  
**"PENNY COBWEB" FLY PAPERS**  
5/- PER GROSS.  
CASH MUST ACCOMPANY ORDER. SAMPLES FREE.  
**CHRISTY STRONG READING.**



THE  
**"SILVER"**  
LIXOL  
FLY CATCHERS.

(Patent and Registered).



The Latest and Best.

Send for Samples.

They Will Convince You.

A Neat and Handy  
Contrivance.

Easy to Open.

Pull the String,  
That's All!



Order through your Wholesaler—if he doesn't stock,  
send us a postcard and we will arrange.

Sole Makers: DEANSMEERE MANUFACTURING CO.,  
Works: HIGH STREET, STOCKPORT, England.

**DAY, SON & HEWITT'S**  
Animal Medicines.

A sure remedy for  
the Fret, Colic or  
Gripes, Influenza,  
Loss of Appetite in  
Horses. For De-  
bility, Scour, or  
Diarrhoea in Horses, Cattle, and Sheep. Hoven or Blown  
Cattle and Sheep instantaneously relieved.



Price 1s. 9d. per bot.; 20s. per doz.



For all Feverish Disorders  
among Cattle, Sheep, and  
Pigs, and for Colds, Indi-  
gestion, Costiveness, Yel-  
lows, Surfeits, Loss of  
Cud, Hide-bound, Red  
Water, &c. Admirably  
adapted for cleansing and  
checking Feverish Sym-  
ptoms in Cows and Ewes  
after Parturition.

Price (Cows), 13s. per doz.; Ewes, 3s. 6d.

For Kicks, Cuts,  
Bruises, Sore  
Withers, Swellings,  
Strains of Ligaments  
and Tendons, Saddle  
Galls, &c. It rapidly  
relieves Straining  
and Pain after Calving and Lambing, and is the remedy  
for Swollen Udders and Sore Teats.



Price 2s. 6d., 3s. 6d., and 7s. per bot.

For full particulars apply—

ROYAL ANIMAL MEDICINE MANUFACTORY,

**22 DORSET ST., LONDON, W.**

**FORD, SHAPLAND & CO.,**

CHEMISTS' &  
GENERAL  
PRINTERS.

6 GREAT TURNSTILE, HIGH HOLBORN, LONDON, W.C.

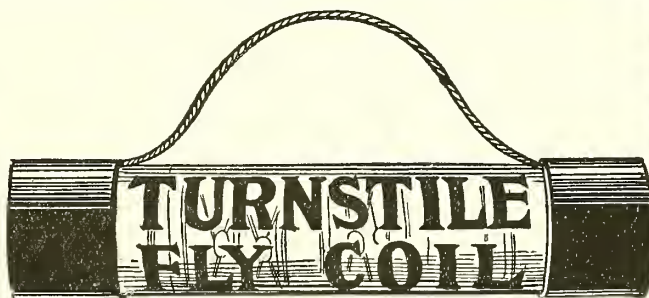
Telephone No. 65 City.



The Cleanest & Most Effective. Specially suitable for  
Export.  
6/- per gross.

The **"SWALLOW"**  
STICKY FLY PAPER.

5/- per gross.



Very Effective, Clean, and Easily opened.  
6/6 per gross.

**CHEMICAL FLY PAPERS.**

Guaranteed to be thoroughly effectual. Printed with own Name and  
Address, and advertisements on the four sides.

1,000 15/-; 2,000 @ 14/-; 3,000 @ 13/-; 5,000 @ 12/-; 10,000 @ 11/-.

**ILLUSTRATED COUNTER BILLS. CABINET PAPER. FOLDING CARDBOARD BOXES.  
TOILET ROLLS. POSTERS. SHOWCARDS. WINDOW BILLS.**

Labels (of every description), Price Lists, Pamphlets, Circulars, Billheads, Cards, Memorandums, Prescrip-  
tion Envelopes, and all kinds of PRINTING and Stationery required by Chemists, at most moderate Prices.

## FORMALIN THROAT TABLETS.



The Popular Antiseptic  
for Preventing Infection  
from Diphtheria, etc.

In Amber Bottles,  
each 50 Tablets.

ROSE, MINT, MENTHOL,  
or LEMON FLAVOUR.

PRICE **5/6** PER DOZ.

Manufactured by  
**Jules Denoual & Co.**

Carlton Works, ASYLUM ROAD, LONDON, S.E.

## DENTIFRICES "FRIEDERICH."

*Free from Acids.*

HIGHEST AWARDS AT ALL THE  
÷ PRINCIPAL EXHIBITIONS. ÷



**TOOTH PASTE in Glass Pots.  
ON THE P.A.T.A.**

8d. size, 5/3 doz.; 1/8 size, 13/- doz.

SOLE AGENTS:

**Jules Denoual & Co.**

Carlton Works, ASYLUM ROAD, LONDON, S.E.

1

# PAPIER POUDRÉ

REGISTERED



"LEHCARESOR."

*Papier Poudre*

### POWDER IN BOOK FORM WITHOUT A PUFF.

The Original PAPIER POUDRE in Dainty Books.

Papier Poudré, 4 1/2 l. size	White, Rose, or Rachel.	2/6
" " 6 l. size	Scented or Unscented.	3/9
" " 1 l. size		7/6
Papier Poudré Shaving Pads, 6 l. size (White)		3/9

Special Prices to Wholesalers and Shippers.

### CAUTION.

In the Civil Tribunal of the Seine, on April 1st, 1909, after protracted litigation, an injunction was obtained against a Paris House for an infringement of these trade marks, full costs and damages being then awarded to PAPIER POUDRÉ, LIMITED.

**RESOLUTELY REFUSE ALL  
SUBSTITUTES.**

TRADE MARKS.



PAPIER POUDRÉ, LTD.,  
23 Somerset St., Portman Square,  
London, W., and in Paris.

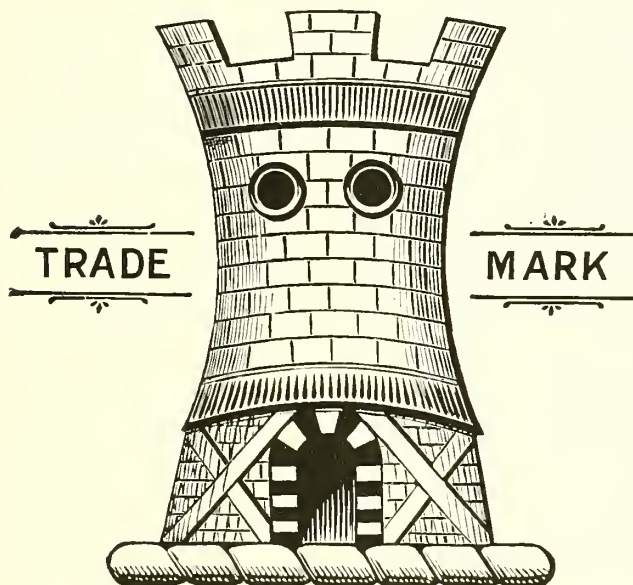
**NONE GENUINE WITHOUT OUR TRADE MARKS.**

Price List on application to—

**PAPIER POUDRE, LIMITED, 23 Somerset St., LONDON, W.**



**"TOWER" BRAND**  
ESTABLISHED 1856.



REGISTERED.

**MITCHAM OILS**

OF UNDOUBTED PURITY & EXCELLENCE.

**PEPPERMINT, LAVENDER,  
CHAMOMILE**

(SUPERLATIVE QUALITY)

PURE RAW OILS ONLY,  
NO REDISTILLED VARIETIES.

FOR SAMPLES AND QUOTATIONS, APPLY—

**JESSE MATTHEW,  
MANOR FARM,**

**WOODMANSTERNE (SURREY).**

Wholesale Buyers and Shippers only supplied  
and their inspection respectfully invited.

**SYNTHETIC**

**OTTO of ROSE**

"TIGER" BRAND.

ALMOST

Wholesale only from:—

**REITMEYER & Co.,  
63, Crutched Friars, London, E.C.**

**Equal to the  
Natural Otto.**

HAVE YOU SEEN THE...

**"MAY QUEEN"**

A Delicately Perfumed  
Powdered...

**TOILET SOAP.**

PACKED IN PRETTILY DECORATED SPRINKLERS.

The only Safe and Sanitary way to use Soap for the Toilet, Bath and Shaving.

**GUARANTEED the PUREST Toilet-Soap Made.**

**HENRY SHAW & Co., Dukinfield.**

# BELGIAN CAMOMILE FLOWERS NEW CROP.

DIRECT SHIPMENTS IN ORIGINAL BALES C.I.F. U.K. PORTS  
ENQUIRIES FOR SAMPLES & SPECIAL OFFERS SOLICITED (*STOCK KEPT IN LONDON*)  
**Fredk. Boehm, Ltd., 16, Jewry St., London, E.C.**

## TRY IT IN YOUR BATH

BY APPOINTMENT



TO H.M. THE KING.

## SCRUBB'S AMMONIA MARVELLOUS PREPARATION

Refreshing as a Turkish Bath. Invaluable for Toilet Purposes.  
Splendid Cleansing Preparation for the Hair. Removes Stains and Grease Spots from Clothing.  
Allays the Irritation caused by Mosquito Bites. Invigorating in Hot Climates.  
Restores the Colour to Carpets. Cleans Plate and Jewellery. Softens Hard Water.

Of all Chemists, Etc. Price 1s. per Bottle.

SCRUBB & CO., LTD., GUILDFORD STREET, LONDON, S.E.

## "CREMOGEN"

(TRADE MARK REGISTERED)

**TOILET CREAMS ENSURE HANDSOME  
PROFITS, AND REPEAT ORDERS FOR  
THE TRADE.**

One pound of "CREMOGEN" will produce from four to eight pounds of a BEAUTIFUL SNOW-WHITE, NON-GREASY, NON-STICKY, EMOLLIENT CREAM. Witch Hazel "Foams" or "Snows" prepared from this base do not dry up like stearic acid products.

A 2/6 tin of "Cremogen" (sent post-free) will produce from five to eight pounds of Cream.

THE TRADE SUPPLIED BY

**Messrs. FRANCIS NEWBERY & SON,  
LIMITED.**

27 CHARTERHOUSE SQUARE, LONDON, E.C.

On behalf of the Trommer Co., Ltd.

Add a new source of income  
to your business by taking up

## Laurence's ONE-SOLUTION Hair Dye

In nine shades — Raven Black, Black, Dark Brown, Brown, Medium Brown, Light Brown, Golden Brown, Auburn and Chestnut.

**THE BEST ON THE MARKET.  
ABSOLUTELY RELIABLE.**

Shows over 100 per cent. profit.

Can be supplied under Chemist's own title if preferred, and exclusive design of carton and label reserved in any one town.

Write at once for particulars to—

**C. R. HARKER, STAGG & MORGAN  
LTD.**  
Devon Wharf, Emmott Street,  
MILE END, LONDON, E.



## An Attractive Window READ pays. READ

what "THE CHEMIST & DRUGGIST" says:

**LAIT LAROLA.** — "This little engraving represents one of the smartest arrangements for window-display that we have seen for some time. It is collapsible, measures 20 in. high by 11 in. wide, and although made of cardboard, at a distance of 3 or 4 yards it is so substantial looking as to convey the idea of the original cartons of "Lait Larola." It is just the thing to make an attractive corner in the window, on a shelf, or, indeed, in any part of the pharmacy. Any C. & D. subscribers who would like one should write to Messrs. Beetham & Son, Cheltenham, the proprietors of "Lait Larola."



Also Show Cards and Coloured Pictorial Postcards for distribution if desired. All the "Larola" preparations are protected at **FULL FACE VALUE**, and the goods bear a good profit.

Price List with terms sent on application to—  
**M. BEETHAM & SON, Cheltenham.**

**COURVOISIER**

A NEW  
DEPARTURE.



CONCENTRATED

# PERFUMES

(WITHOUT SPIRIT).

When purchasing, mention **C.C.**,  
with the name of the perfume.

**VIOTTO, C.C.**

**HAVANITA, C.C.**

**ROSE, C.C.**

**LILY of the VALLEY, C.C.**



Actual Size of Vial. 30/- per doz. nett. 3/9 per vial retail.

A tiny vial, yet containing more essence than an ordinary bottle of perfume at a higher price.

A ready selling line backed by advertising and giving entire satisfaction to the purchaser. Entered on the P.A.T.A.

A STRONG SELLING ARGUMENT

Courvoisier's C.C. Perfumes contain no spirit, therefore they, and incidentally the purchaser, pay no spirit duty.

Of your Wholesaler, or direct from

**H. BRONNLEY & CO., Ltd.**

Acton Vale, LONDON, W.

# PRICE'S GLYCERIN.

## GUARANTEED CHEMICALLY PURE.



Since its introduction in 1855, PRICE'S GLYCERIN has maintained an unrivalled position, and can be confidently recommended on account of its reputation for unsurpassed purity and for the uniformity of its quality.

GRAND PRIZE FRANCO-BRITISH EXHIBITION AND  
HIGHEST AWARDS AT ALL THE GREAT EXHIBITIONS.

**PRICE'S PATENT CANDLE COMPANY,**  
LIMITED,

**LONDON, LIVERPOOL & MANCHESTER.**







# EMULSION OF COD LIVER OIL Season, 1909.

---

Put up in seven different styles.  
Chemists' names printed free.  
Handsome Window Displays.

---

SUPPLIED ALSO IN BULK.

---

It is claimed that our Cod Liver Oil Emulsion is the most perfect INSEPARABLE EMULSION on the Market. Fresh testimony is received almost daily as to the appreciation in which it is held, and we will gladly send a sample to any chemist in the Kingdom.

---

## Baiss Brothers & Stevenson,

AND  
"GRANGE WORKS"  
BERMONDSEY, S.E.

Emulsion Specialists,  
JEWRY STREET, LONDON, E.C.

LIMITED.

Telegraphic Address: "CRESSWELL LONDON."

WORLD'S HEADQUARTERS FOR

[Telephone: No. 1432 HOLBORN.]

International Sponge Importers, Limited,

# SPONGES

## CRESSWELL BROTHERS & SCHMITZ,

Sponge Importers, Exporters, & Merchants, [BRANCH  
and Chamois Leather Dressers,18 & 19 RED LION SQUARE, New Warehouses and Steam  
Bleacheries, 45, EAGLE STREET, LONDON, W.C.

175 Rue du Temple, PARIS; Piazzetta Barisone 73, GENOA; and Leyendeckerstrasse 13, COLOGNE, EHRENFELD.

The following abridged List will serve as a guide to Buyers when ordering.

**UNBLEACHED MEDITERRANEAN SPONGES IN ORIGINAL CASES.**

HONEYCOMB.		HONEYCOMB.		FINE TURKEY CUPS		FINE TURKEY CUPS.		FINE TURKEY SOLIDS.	
Toilet & Bath.		2nd Shape.		1st Quality.		2nd Quality.		SELECTED SHAPES.	
1st Qualities.		Largest Sponges obtainable at the prices.		PICKED SHAPES.		LARGE FOR MONEY.		1st Quality.	
Pieces in Case.	Average Price per Piece.	Pieces in Case.	Average Price per Piece.	Pieces in Case.	Average Price per Piece.	Pieces in Case.	Average Price per Piece.	Pieces in Case.	Average Price per Piece.
300 at 4'd.		330 at 2'd.		300 at 1/-		300 at 9d.		400 at 3d.	
270 .. 6d.		300 .. 3'd.		250 .. 13		250 .. 1/-		300 .. 4d.	
200 .. 8d.		280 .. 4'd.		207 .. 16		200 .. 13		200 .. 6d.	
180 .. 9d.		250 .. 6d.		175 .. 19		180 .. 16		200 .. 8d.	
170 .. 1-		200 .. 8d.		150 .. 2-		150 .. 2-		200 .. 1/-	
160 .. 12		180 .. 9d.		140 .. 2.6		120 .. 2.6		150 .. 1.6	
160 .. 16		160 .. 1-		100 .. 3-		90 .. 3-		100 .. 1.9	
150 .. 19		140 .. 13		90 .. 3.6		80 .. 3.6		100 .. 2-	
140 .. 2-		120 .. 1.6		80 .. 4-		70 .. 4.6		80 .. 2.6	
140 .. 2.6		100 .. 1.9		70 .. 4.6		60 .. 5-		50 .. 3-	
125 .. 3-		90 .. 2-		60 .. 5-		50 .. 6/-		36 .. 4-	
110 .. 3.6		80 .. 2.6		50 .. 6/-		40 .. 7.6		24 .. 5-	
95 .. 4-		60 .. 3-							
90 .. 4.6		45 .. 4.6							
80 .. 5-		30 .. 5-							
75 .. 5.6									
70 .. 6.6									

**LOOSE GOODS DEPARTMENT**

where Honeycomb, Turkey, and Cuban Sponges are sold in smaller quantities to suit customers' requirements. Large and varied selections always on show at lowest market price.

**SPECIAL NEW LINES OF THE SEASON:****SPONGES in Fancy Card Boxes for Counter Display.****SELECTED FINE CUBAN.**

For Nursery and Toilet uses.

A.A. Round Solids, containing 24 pieces		Per Box
A. " " " 12 " "	...	16
B. " " " 12 " "	...	16
C. " " " 12 " "	...	2.6
D. " " " 12 " "	...	3.6
E1. " " " 12 " "	...	4.6
E2. " " " 12 " "	...	6-
E3. " " " 6 " "	...	9-
		6-

**SPECIAL LINE CHEAP CUBAN.**

Half forms, large sponge for money.

HC 1. Half Shapes, 8 dozen in Box	...	12/-
" 2. " " 5 " "	...	12.6
" 3. " " 3 " "	...	10.6

**NEW ANCLOTE HONEYCOMB.**

Velvet Quality. Very soft and Durable, for Toilet and Domestic use.

01. Large for money, 36 pieces.	...	9/-
02. " " 24 " "	...	8-
03. " " 24 " "	...	12-
04. " " 24 " "	...	18-
05. " " 12 " "	...	12-

The above Lines can be had Bleached or Unbleached.

**NEW FINE ANCLOTE.**

For Toilet and Bath, exquisitely soft—very durable.

No. 20. Containing 36 pieces, uniform size	...	9/-
" 21. " 24 " "	...	8-
" 22. " 24 " "	...	12-
" 23. " 24 " "	...	18-
" 24. " 24 " "	...	24-

**SELECTED CUBAN GRASS SHAPES.**

1st quality for Toilet use, in Artistic Cardboard Boxes.

G. S. 80 Selected Shapes, 12 pieces ...	...	at 1.6 per Box.	G. S. 85 Selected Shapes, 12 pieces ...	...	at 3/6 Per Box.
81 " " " 2.0 " "	...		86 " " " 4.6 " "	...	
82 " " " 2.6 " "	...		87 " " " 6 pieces	...	4.6
83 " " " 3.0 " "	...		88 " " " 6 pieces	...	4.6
84 " " " 3.6 " "	...		89 " " " 6 pieces	...	6/-

All Orders and Communications for  
this Branch to be addressed to**18 & 19 RED LION SQUARE, LONDON, W.C.**




# A very free-selling line —yielding a generous protected profit.

Your customers find their ideal in Euthymol Talcum Powder; it is so fine, so inconspicuous, so delicately perfumed. It adheres in just the right amount, and exerts just the desired influence upon the complexion and comfort of the user.

And you—already will have proved by a simple calculation that every time you make a sale of Euthymol Talcum Powder, you gain a living profit with something to spare for your trouble.

PARKE, DAVIS & CO., 50 Beak Street, Regent Street, LONDON, W.

	<h2 style="text-align: center;">NEWBRO'S HERPICIDE</h2> <p style="text-align: center;">The ORIGINAL remedy that kills the dandruff germ.</p> <p>This wonderful Hair-Saver acts by destroying the germ or microbe that causes dandruff, itching scalp and falling hair, after which the hair resumes its abundant growth and beauty as nature intended. Extraordinary results follow the intelligent use of Herpicide. Sold in all civilised countries.</p> <p>Newbro's Herpicide is the most exquisite hair dressing in the world. Cooling and comforting. It stops itching of the scalp almost instantly.</p> <p>Manufactured by THE HERPICIDE COMPANY, Detroit, Michigan, U.S.A.</p> <p style="text-align: center;">TRADE SUPPLIED BY</p> <h3 style="text-align: center;">THE AMERICAN DRUG STORES / THOMAS CHRISTY &amp; COMPANY</h3> <p style="text-align: center;">Wholesale and Retail</p> <p>C. BROOKS, M.P.S., Chemist and Druggist, 4 Northumberland Av., W.C.; Craven House, Kingsway, W.C.; and 36 Cranbourn St., W.C.</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>PRICES</b></p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Retail 4/- per bottle.</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Wholesale 32/- per dozen.</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">In lots of 3 dozen, 5 % discount.</p>
--	---	--

**POWDER PAPER. PAINT PAPER.**  
**COMBINATION PAPER BOOKS.**  
**SOAP LEAVES IN BOOKLETS.**  
**NAIL-POLISHING PAPER.**  
**NAIL-POLISHING STONES.**  
**IN ALL VARIETIES.**

*Best Qualities. Lowest Prices.*

PHARMAZEUTISCHE INDUSTRIE-GESELLSCHAFT.  
m.b.H.  
OFFENBACH a. M. (GERMANY) 5.

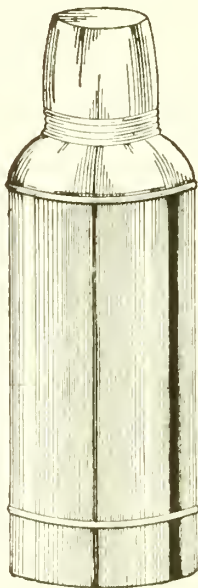
## A GOOD LINE.

**HAMMOND'S** (antiseptic) **CLEANSING PASTE**  
removes **Tobacco Stains** from the **Fingers**.  
Also **PAINT, OIL, FRUIT, and INK STAINS**.

Leaves the hands Clean, Soft, and Smooth.  
Sold in tins 1/- each. 2/- per dozen carriage paid.

**THE HAMMOND MANUFACTURING CO.**  
30 St. Andrew Square, **EDINBURGH.**

# THE **THERMOS** FLASK—for Lactonised Milk.



**THERMOS Flask** not only keeps liquids steaming hot for 24 hours and cold liquids icy cold for days without fire or chemicals, but by testing and experiments by able Medical Men it has been proved to be the **easiest, simplest, and most effective** mode of producing Lactonised Milk. The *modus operandi* is as follows:—

Heat your milk to a temperature from 105° to 110°—  
Pour into **THERMOS Flask** with one tablet of Lactic Acid and a spoonful of sugar. Allow the milk to stand from 10 to 12 or more hours, and perfect Lactonised Milk is the result.

**This means MINIMUM trouble—MAXIMUM results**

MEDICAL MEN ARE LARGELY RECOMMENDING THE FLASKS TO PATIENTS.

**Prices from 21/- each PINTS and 31/6 each QUARTS.**

*They can be obtained of all CHEMISTS and DRUGGISTS. JEWELLERS, SILVERSMITHS and STORES.*

Wholesale only: A. E. GUTMANN & CO., 8 Long Lane, London, E.C.

The  
Gold  
Medal  
Wine  
Tonic



London,  
1908.

## WINCARNIS

**DO** Stock it? It means quick **YOU**  
**YOU** sales and a steady profit if **DO**

SEND FOR LIST.

All Registered Chemists can sell Wincarnis with Quinine without a licence. Why not you?

Medical men in your district order it often, and there is a large public demand. [17]

By Special Appointment to the King & Queen of Spain.

COLEMAN & CO., LTD., 21 Wincarnis Works, NORWICH.

## BELOW ARE JUST A FEW OF HORNER'S

**SPECIALITIES**, for which they are renowned all over the world . .

Vittoria Liquorice Juice.

High-class Trimmed and Powdered Rhubarb.

Genuine Otto of Roses.

Absolutely Pure English-distilled Sandalwood Oil.

Best Selected Druggists' Opium.

Cut Sarsaparilla of all kinds.

Powd red Ipecac. and Jalap.

A large stock of all Gums, Roots, Barks, &c., in ordinary form and powder, always kept.

### HORNER & SONS,

24 GEORGE STREET, TOWER HILL, E.C.

(Late of Mitre Square, Aldgate)

And 20 BUCKLESBURY.





# NATURAL MINERAL WATERS, &c.



SOLE AGENTS  
FOR

## VICHY

(STATE  
SPRINGS).

### CARLSBAD WATERS, CARLSBAD SPRUDEL-SALT.

AESCULAP,  
BONIFACIUS,  
CONDAL,  
CONTREXEVILLE,  
EVIAN,  
FRANZ-JOSEF,  
FRIEDRICHSHALL,  
GISSHUBLER,  
GUBERQUELLE,

*Wholesale Agents for*

HUNYADI JANOS,  
INSALUS,  
KISSINGEN,  
KRONENQUELLE,  
LEVICO,  
MONTREUX,  
OBERBRUNNEN,  
OBER-SELTERS,

PERRIER,  
ROSBACH,  
RUBINAT,  
ST. GALMIER,  
VALS,  
VILLACABRAS,  
VITTEL,  
WILDUNGEN,

*And all other Natural Mineral Waters.*

Price Lists, Show Cards, Dummy Bottles, Pamphlets, &c.

(1)

**INGRAM & ROYLE, LTD.,** EAST PAUL'S WHARF,  
26 UPPER THAMES ST., E.C.

AND AT LIVERPOOL AND BRISTOL.

*SPECIAL DISCOUNTS FOR EXPORT.*

## A. MILLAR & CO., LTD., DUBLIN PURE ORANGE WINE

(VINUM AURANTI, B.P.). prepared in strict accordance with the Formula of the British Pharmacopœia. (Wholesale only.)

WRITE FOR SAMPLES TO 10, 11, and 12 THOMAS STREET, DUBLIN.

# SODAWATER MACHINERY

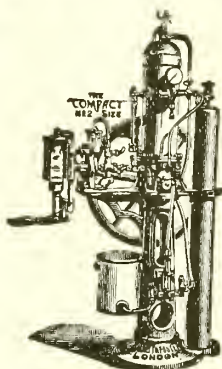
## THE "COMPACT" MACHINES

are specially designed for  
CHEMISTS, GROCERS, RESTAURATEURS,  
and everyone to whom space is an object,  
and can be used for filling Syphons, Codd's  
Bottles, or Cork Bottles.

**OCCUPY LITTLE SPACE!  
ARE READY FOR USE IMMEDIATELY!  
REQUIRE NO FIXING!**

Produce Soda Water, Lemonade, &c., of the  
highest class and greatest purity.

**Write for Catalogue.**



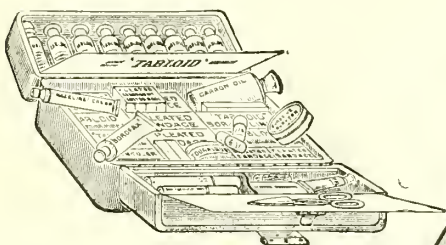
**A COMPLETE APPARATUS—  
CAPABLE OF PRODUCING OVER  
300 DOZEN LARGE BOTTLES  
OF AERATED WATER PER DAY  
—from £20.**

Bottles, Boxes, Essences, and all  
Requisites for the Trade at  
Lowest Prices.

**BARNETT & FOSTER, Niagara Works, 26<sup>th</sup> Eagle Wharf Road, N.**

*Proprietors of Galloway, Bros., Bolton.*





No. 702 'Tabloid' First-Aid  
(Registered)

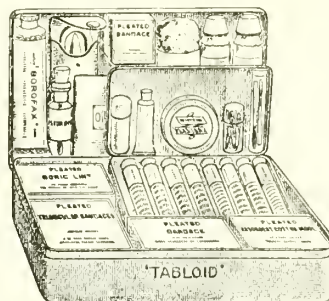
Contains *eight* tubes of 'Tabloid' and 'Soloid' Brand products, 'Borofax,' 'Hazeline' Cream, Sal Volatile, Carron Oil, 'Tabloid' Bandages and Dressings, scissors, pins, etc., etc.

Measurements:  $7 \times 5\frac{1}{4} \times 2\frac{3}{4}$  in.

In Rex Red, Royal Blue or Brewster Green Enamelled Leather

Retail

50/-



No. 715 'Tabloid' First-Aid  
(Registered)

Contains *eight* tubes of 'Tabloid' and 'Soloid' Brand products, Sal Volatile, 'Borofax,' Carron Oil, Plaster, Protective Skin, 'Tabloid' Bandages and Dressings, scissors, pins, etc.

Measurements  $7\frac{1}{2} \times 4\frac{1}{2} \times 2$  in.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised or Black Japanned Metal

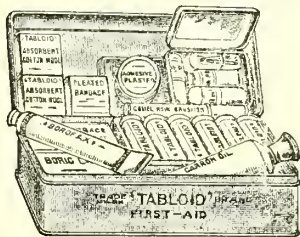
Retail

10/6

TRADE  
MARK  
**'TABLOID'**  
BRAND  
**FIRST-AID**

FOR

Automobilists Aeronauts  
Sportsmen Travellers  
Yachtsmen and others



No. 707 'Tabloid' First-Aid  
(Registered)

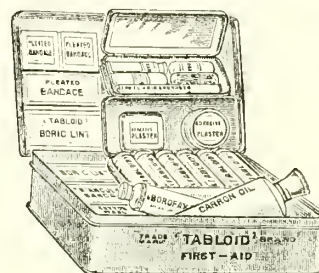
Contains *six* tubes of 'Tabloid' and 'Soloid' Brand products, 'Borofax,' Carron Oil, 'Tabloid' Bandages and Dressings, pins, etc., etc.

Measurements:  $6\frac{1}{2} \times 3\frac{1}{4} \times 2$  in.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal

Retail

7/6



No. 712 'Tabloid' First-Aid  
(Registered)

Contains *six* tubes of 'Tabloid' and 'Soloid' Brand products, 'Borofax,' Carron Oil, 'Tabloid' Bandages and Dressings, pins, etc., etc.

Measurements:  $6\frac{1}{2} \times 4\frac{1}{4} \times 2$  in.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal

Retail

10/-

There is an increasing demand for these equipments. They are models of completeness and portability and are as attractive as they are useful.

BURROUGHS WELLCOME & CO., LONDON (ENG.)

Branches: NEW YORK MONTREAL SYDNEY CAPE TOWN SHANGHAI

# B.D.H.

## WHAT THE PRESS SAYS OF OUR NEW ILLUSTRATED CATALOGUE OF PACKED SPECIALITIES.

**A Smart List** of chemists' specialities has just been brought out by The British Drug Houses, Ltd. (Barron, Harveys & Co., Davy Hill & Co., Hearon, Squire & Francis, and Hodgkinsons, Clarke & Ward). The list measures 9½ x 7½, contains 130 pages, and is bound in a bright red limp cover. A feature of the catalogue is the way it is illustrated by half-tone photographic blocks of each of the packed specialities.

The British Drug Houses, Limited, have issued an illustrated catalogue detailing a number of the specialities and packed goods emanating from the conjoint firms. The index is not only comprehensive, but, providing at first glance the name of the article, its size, price wholesale, and page where the description appears, is a great deal more useful than the usual list of contents.

**A New Catalogue.**—We are in receipt of a handsomely illustrated catalogue and price list of chemists' specialities, comprising the many preparations of the four houses forming The British Drug Houses, Ltd. The list contains many new features, and reflects great credit on those responsible for its publication. A glance at the 130 pages of the catalogue cannot fail to favourably impress the reader with the artistic appearance of the goods and the wide choice of style offered to the pharmacist. The list

A description is given of each article, with prices, and the whole is made easy of access by means of a well-compiled index. This index gives not only the reference to the page where the particular speciality is described, but the size and price. The list includes galenical, domestic, and photographic articles and perfumes.

*C. & D., Aug. 21.*

Turning to the descriptive portion, this is concisely worded, and illustrations selected from the various types are shown. There is no hunting or dodging about to connect the illustration with the text; the whole 130 pages have been arranged for the convenience of the busy pharmacist. A copy of this list will be sent on application to The British Drug Houses, Limited, 22 to 30 Graham Street, City Road, London, N.

*B. & C. D., Aug. 20.*

is printed on fine art paper, thus enabling the reader to obtain a good idea of the attractive packing of the preparations.

The British Drug Houses, Ltd., print the pharmacist's name and address on the labels on orders of three dozen and upwards. The price list and index which accompanies the catalogue is commendably comprehensive and clear, and no difficulty should be experienced in immediately referring to any particular article.

*P.J., Aug. 21.*

A copy will be sent to any Pharmacist on application to

# THE BRITISH DRUG HOUSES LTD.

BARRON, HARVEYS & CO.,

Giltspur Street, E.C.

DAVY HILL & HODGKINSONS, Graham Street, City Road, N.

HEARON, SQUIRE & FRANCIS,

Southwark Street, S.E.





**A Weekly Journal of the Chemical and Drug Trades,**  
and of  
**British Pharmacists throughout the Empire.**  
ESTABLISHED 1859.

THE CHEMIST AND DRUGGIST is the leading Journal addressing the chemical and drug trades of the British Empire. It is adopted as an official Journal by seventeen Chemists' Societies in Australia, Ireland, New Zealand, South Africa and the West Indies, and its paid-in-advance circulation in Great Britain and all Countries having business relations with the British Empire is intrinsically and numerically unique.

#### Subscription Rates.

Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemist and Druggists' Diary* next published. Subscriptions may begin any month. Single copy, 6d.; Summer or Winter Number, 1s. *Diary*, 8s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 12-60 francs, franco.

Jährlicher Abonnementspreis: die Zeitung einmal wöchentlich, und der Notizkalender einmal im Jahre, 10 Mark, postfrei.

Precio de suscripción anual: el periódico una vez por semana, y el agenda una vez por año, 12-60 pesetas, franco.

\*Terms for advertising in THE CHEMIST AND DRUGGIST can be obtained on application to the Publisher at the

**Head Office: 42 CANNON STREET, LONDON, E.C.**

Telegrams: "Chemicus London." Telephone 852 Bank.

**Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.**

#### CONTENTS: Vol. LXXV., No. 19 (Series No. 1545).

	PAGE		PAGE
Agri - Horticultural		Esperanto Pharmacists	
Poisons ..... <i>Col. Supp.</i>		..... <i>Col. Supp.</i>	
American Notes ..... 395		French News ..... 395	
American Pharmaceutical Association ..... 415		Gazette ..... 399	
Australasian News ..... 396		India and the East ..... 396	
Bergamot oil ..... 411		Information Department ..... 404	
Births ..... 400		Irish News ..... 394	
Books, New ..... 413		Legal Reports ..... 399	
British Association ..... 402		Marriages ..... 400	
Business Changes ..... 399		Miscellaneous Inquiries ..... 423	
C. & D. Jubilee... 410		New Companies and Company News ..... 399	
Canadian Pharmaceutical Association ..... 414		Observations and Reflections ..... 405	
Cartooned Chemists ..... 420		Personalities ..... 400	
Corner for Students ..... 392		Petit-grain Oil ..... 410	
Correspondence ..... 420		Poisonings ..... <i>Col. Supp.</i>	
Deaths ..... 400		Pure Food Act (N.S.W.), 1908 ..... 397	
Editorial Comments:		Scots News ..... 394	
Agri - Horticultural		South African News ..... 397	
Licences ..... 406		Summer Outings ..... 404	
Irish Poor-law Medicines ..... 407		Sweet Oil ..... 412	
Chemists' Scales ..... 408		Trade Notes ..... 400	
New Licence Duties ... 409		Trade Report ..... 417	
Essential-oil Adulteration ..... 409		Westminster Wisdom ... 401	
English News ..... 392		Wills, Recent ..... 399	

THE distinction which THE CHEMISTS' AND DRUGGISTS' DIARY has over all other annual publications for the chemical and drug trades is that it is the daily reference book in business matters. Better still, from the advertiser's point of view it is the reference book of buyers. The reason of this is notable. The DIARY grew in favour from its initiation in 1869, and business houses in increasing numbers took advertising space in it. A point was reached when also in increasing numbers buyers realised that in the C. & D. DIARY they had a ready reference list of goods that they So indispensable this respect that ago we, at the reusers of the DIARY, compiled for each DIARY a Buyers' Guide on a novel yet simple principle—viz., that of indexing each article, brand, or other "leader" occurring in the DIARY advertisements. It has answered admirably; it helps buyers every business day to find goods that they want, and, in consequence, takes business to those who advertise in the DIARY. Now is the time to arrange for advertisements in the 1910 DIARY, and the address to write to in regard to space is "The Publisher, C. & D. DIARY, 42 Cannon Street, London, E.C."

**BUYERS' GUIDE.  
GOOD BUSINESS.**

## Summary of the Week.

#### Articles and Contributions.

The first regulations made under the Pure Food Act of New South Wales are described on p. 397.

Oil of petit-grain from Paraguay is being adulterated with ethyl tartrate, which Mr. E. J. Parry describes on p. 410.

What is sweet oil? Scores of opinions from pharmacists in England, Ireland, and Scotland show that it is colza oil almost everywhere except in London and the South of England (p. 412).

Bergamot oil is being adulterated in a new way, Mr. John C. Umney having found terpineol acetate in it. Ho protests against the prostitution of chemical knowledge to the aid of sophisticators (p. 411).

We comment upon the report by Mr. J. F. Brunner to the Irish Local Government Board on the medicine supplies to workhouses and dispensaries during 1908. The percentage of defective medicines is the lowest on record (p. 407).

"Nrayser" reflects upon the renaissance of science as outlined in the British Association addresses by Sir J. J. Thomson, Professor Rutherford, and Professor Armstrong. He also touches on the off wine-licence duties and the new U.S. tariff (p. 405).

The Budget licence-duties are being modified by the Chancellor of the Exchequer. We describe the effect of his amendments in an article on p. 409, from which it will be seen that the wine-licence rates have been modified, and "off" sales of spirits and wines in Ireland and Scotland are to be in closed vessels only.

We have reduced the position as regards agri-horticultural poison-licences to a diagram, which, with the notes that accompany it, shows that, in proportion to area and population, more licences have been granted in Aberdeenshire than in any other county in Great Britain. The positions of other counties are also shown (p. 406).

#### Correspondence.

The *Podophyllum Emodi* controversy is maintained by Mr. E. J. Millard. Dr. J. C. McWalter writes about belladonna in cathartic pills (p. 420). Mr. S. W. Bunker gives a warning about the contents of sandalwood-oil capsules, Mr. James Reid heralds a pharmacists' fight on quack medicines (p. 421); Mr. P. B. Dallimore tells how ammonium phosphate can be estimated volumetrically, Jay Mack writes about stock-taking, Mr. W. Bousfield about improved stoppers (p. 422), and Mr. A. H. Jones and another on travellers' calls (p. 423). Besides these letters we print numerous replies to correspondents (pp. 423-5), but have been unable to get all letters and replies in this week.

#### Information Department.

We have for many years been telling inquirers where to get goods, and our organisation for that purpose has developed greatly this year, with the result that we now give it more prominence and extend its usefulness. See p. 404.

#### News.

Our Durban correspondent contributes notes on the South African Medical Congress held there, and on the exhibition in connection with it (p. 398).

Abstracts of the British Association addresses by Professors Rutherford and Armstrong and notes on the Winnipeg meeting are printed on p. 402.

Professor Oscar Oldberg, President of the American Pharmaceutical Association, was unable to preside at the annual meeting held at Los Angeles, which we report concisely (p. 415).

The Canadian Pharmaceutical Association met at Banff, Alberta, last month, and we report the proceedings, with Mr. Gibbard's presidential address, and notes on the papers read. A photograph of the members is reproduced (p. 414).

The licensing clauses of the Finance Bill have now been reached in the House of Commons, and notes on the discussion are given; also the Home Secretary's reply to Captain Craig's question on quack medicines, as well as other matters (p. 401).

#### Trade Matters.

Although the market features are few, there is a steady undercurrent of trading, and most of the fluctuations are in a higher direction. Among the more important we include opium, hydrastis, senega, cod-liver oil, and American peppermint oil. Castor oil, Japan wax, and capsicums are on the easier side (p. 417).

## Corner for Students.

Conducted by Leonard Dobbin, Ph.D.

### SUMMER CONTRIBUTIONS.

#### The Microscope for the Young Pharmacist.

By J. C. Shenstone, F.L.S.

#### IV.

NOW the student has become adept at sectioning he should practise the art of making permanent slides for future reference. Of the various media used for the purpose glycerin jelly (containing 1 per cent. of carbolic acid) or Canada balsam thinned with xylol will be best adapted to meet the usual requirements—the former for soft transparent tissues, which become almost invisible in Canada balsam, and the latter for stained specimens or denser tissues. The specimen for mounting in glycerin jelly should first be cleared by macerating it in glycerin (or in diluted glycerin for delicate specimens, allowing the water to dry off gradually by exposing it in a shallow dish so as to avoid any distortion of the tissue). A small fragment of glycerin jelly is then placed upon a slide, judging as far as possible the exact amount required. The jelly is melted by warming the slide, any bubbles of air present being drawn to the edge by means of a dissecting-needle, and the object is carefully laid upon the melted jelly. Finally a warmed cover-glass is placed with one edge in contact with the jelly, and gently lowered upon the object in order to drive out any air-bubbles. Should bubbles be enclosed the jelly must be remelted by gently warming the slide, and after carefully raising the cover-glass the bubbles drawn on one side by means of a bristle mounted in a handle. A bristle also serves to adjust the object after the cover has been placed in position. Glycerin-jelly mounts are practically permanent without sealing, but a ring of gold-size prevents dust adhering to the exposed edges of the mount and also prevents the jelly shrinking owing to evaporation. A ring of black or coloured cement is frequently applied by means of turntables to improve the appearance of the finished slide. For mounting in Canada balsam, the tissues of the specimen must be dehydrated by steeping in absolute alcohol (with delicate specimens the water must be driven out gradually by treating the object first with diluted alcohol and then with alcohols of increasing strengths until the final treatment with absolute alcohol). After clearing the dehydrated object by immersion in xylol, turpentine, clove or cedar-wood oil, a drop of thinned Canada balsam is placed in the centre of the slide and the object mounted on it, using the same precautions as in preparing mounts in glycerin jelly. Sufficient of the mounting-medium is used to allow a small quantity to exude round the edges of the cover-slip in order to compensate for shrinking during drying. The cover-glass is usually held in position by a small spring clip which is sold for the purpose. To expedite drying the slide is placed in a warm spot for some days, and finally the mount may be ringed with gold-size and coloured cement.

Drawing the object under the microscope is the best method of impressing its characters on the mind. The student deficient in draftsmanship can use a camera lucida, but even poor attempts at sketching draw attention to the all-important details.

Staining specimens in a watery solution of aniline sulphate often affords assistance in discriminating between soft tissue and hardened (lignous) tissues, the latter taking on a more or less bright yellow colour. The sections after staining should be well washed in water. Effective double staining can be obtained by staining a section in a watery solution of "iodine green," and after washing placing it in Mayer's "alum carmine" solution for a longer period, the hardened tissues taking on the green colour and the softer showing up pink. Picro-nigrosine or picro-aniline blue gives double staining effects at one operation.

The study of the more common drugs of *materia medica* in section and in powder form will fulfil the dual purpose of providing examples of the various tissues and cell-contents of plants for investigation from the botanical and

diagnostic standpoints. The various anatomical atlases only become necessary in the later stages.

The purpose of this series of short articles is to show the student how to start on his microscopical studies. This object has now been fulfilled, and further guidance must be sought in the text-books dealing with the different subjects which have been briefly surveyed.

## English and Welsh News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

#### Brevities.

Serious damage was caused by fire at 277 Goswell Road, London, E.C., on the premises of Mr. George Tittensor, druggists' sundriesman, on August 31.

At the next meeting of the West Ham Association of Pharmacists on September 9, Dr. W. Lauzan-Brown will deliver a lecture on "Pain and its Relationship to the Pharmacist."

Two hundredweight of honey was secured from a hive between the inner and outer walls of a house on Merle Common, Oxted, Surrey, on August 31, when the outer wall was cut away.

A 6-cwt. cask of treacle was being unloaded at an Oswestry chemist's shop-door last week, when an end came out, and the whole contents poured down the gutter to the nearest drain—100 yards away.

A destructive fire occurred in the early morning of August 30, at the premises of the Riley Manufacturing Co., Ltd., aerated-water engineers, which severely damaged about two-thirds of the premises.

The Manchester Bench have refused an application for the transfer of the medicated-wine licence attached to the shop at 81 Alexandra Road, Manchester, from the late Mr. John Lloyd Morris, chemist and druggist, to Mr. David Thomas Morris.

A fine adder was killed on the moors between Ilkley and Blubberhouses, on August 29, by Mr. F. K. Taylor, Ph.C., Oak Lane, Bradford, with the aid of a friend. The reptile, which is the second one found by Mr. Taylor in the last two years, is now on view in his Oak Lane pharmacy window.

The Wood Green medical officer (Dr. C. H. Conolly) reports that forty-eight tubes of anti-diphtheritic serum have been supplied to medical practitioners during the past year, while thirty-five bacteriological examinations have been made by the Clinical Research Association on behalf of the local council.

The programme of the day and evening classes at the West Ham Municipal Technical Institute is a book of 242 pages, costing 1d. Particulars of courses in pharmacy and *materia medica* (by Mr. W. A. Knight, Ph.C.) and instruction in chemistry and physics will prove of interest to local students of pharmacy.

The Duke of Argyll, Hon. President of the Franco-British Exhibition, has issued a letter to the Press expressing appreciation of services rendered in carrying out the undertaking, and mentioning the valuable services of, *inter alios*, Sir Norman Lockyer, Sir Boverton Redwood, Colonel D. Prain, and Mr. Alfred Mond, M.P.

The Hay Guardians, after considerable discussion, granted the application by one of the medical officers (Dr. Herbert Williams) for an allowance in respect of the extra cost incurred in using diphtheria serum. The objections were that it was no use making contracts with medical officers and later granting them concessions, and that if extras were allowed to one they must allow them to all.

A meeting of the Chemical Trade Section of the London Chamber of Commerce is to be held at the Oxford Court, London, E.C., on September 7, at 2.30 p.m. Among the subjects before the meeting will be a report on the action taken regarding the countervailing duties on alcoholic derivatives, the nomination of members of the joint Spirit Committee, the consignment of druggists' goods at owners'



risk, and the duties on perfumes, etc., entering the United States.

The Croydon medical officer (Dr. H. Meredith Richards), in his annual report to the Education Committee, states that the best means of assisting school-children to procure suitable spectacles will have to be considered as soon as accommodation is provided at the Town Hall for more detailed examination of their eyesight. From inquiries there appears to be no difficulty in arranging with one or more opticians to supply the spectacles at reduced prices varying from 1s. 9d. to 4s. 6d.

#### Golf for London Chemists.

The autumn session of the London Chemists' Golf Club opens this week at Chingford, and the executive extend a hearty welcome to new members. The club is an enthusiastic body, and full particulars in regard to it may be obtained from the Hon. Secretary, Mr. W. Duncan, 52 Shaftesbury Road, Hornsey Rise, London, N.

#### Women of All Nations Exhibition.

This Exhibition was opened at Olympia, London, on September 1. In connection with the Canine Nurses' Institute, who show bottle-fed puppies, Messrs. A. F. Sherley & Co., Borough, S.E., have a nice exhibit of dog-medicines, including a dog's medicine-chest containing everything the most fastidious animal could require. Spratts' Patent, Ltd., have a stall near by, with their well-known specialties. Cadbury Bros. make a working exhibit of the different processes in chocolate-making. At Mr. A. Wander's stand 3d. sample tins of "Ovaltine" are offered. Other exhibits are Horlick's Malted Milk, McClinton's Soap, Mellin's Food (showing wicker baby-scales), and Danyasz Virus.

#### Sale of Food and Drugs Acts.

The Stoke Newington analyst examined one sample each of compound liquorice powder, lime-juice, and Seidlitz powder during 1908. All proved to be genuine.

The following samples were examined in Bristol last year: Olive oil, 3; camphorated oil, 7; compound liquorice powder, 7; castor oil, 6; glycerin, 4; tincture of iodine, 4; Epsom salts, 2; sal volatile, 1; ammoniated tincture of quinine, 1; eucalyptus oil, 1. One of the camphorated oil samples contained only 10 per cent. of camphor, and the others from 19.5 to 23 per cent. Two samples of tincture of iodine contained over 4 instead of less than 3 per cent. of iodine. Two proprietary disinfectants showed carbolic co-efficients of 2 and 2.6 when tested against *B. Typhosus*. Acetanilide was found in two out of three proprietary medicines said to have been used by a deceased person. The report states that the public sale of such dangerous drugs should be prohibited.

The Marylebone medical officer (Dr. A. W. Blyth) says in his annual report that the number and nature of the drug samples (111) were regulated according to season, and as far as possible, by reference to trade journals, to the state of the market. During the prevalence of influenza attention was given to such articles as ammoniated tincture of quinine, spirit of camphor, and quinine-wine, while in the early spring citrate of magnesia, cream of tartar, sulphur tablets, and the like were taken for analysis. In cold weather sweet spirit of nitre, camphorated oil, ipecacuanha-wine, saffron, etc., were sampled, and in the summer months increased sampling was in vogue of such articles as lime-juice and lime-water. Agents, who were frequently changed, were often employed, and test samples taken regularly. Dr. Blyth sums up as follows:

More articles coming under the British Pharmacopœia were analysed than in former years. Although the analysis of drugs is not easy, especially of certain complicated compound medicines, yet the analyst has the great advantage of usually having some sort of standard to work by. One hundred and eleven drugs were analysed, and in one case only (a sample of Gregory's powder) was a certificate of adulteration given. The powder had been carelessly compounded, the magnesia being 26.6 per cent. instead of 66.6 per cent.

#### Window-smashers.

At the Greenwich Police Court on August 26. Ernest Nunn (20), labourer, was sentenced to one month's imprisonment with hard labour for wilfully breaking a plate-glass window, value 4l. 10s., at the shop of Mr. Archibald

James Hunt, chemist, 5 Woolwich Road, East Greenwich, London, S.E.

At Portsmouth Police Court on August 30, James M. Sutcliffe, musician, was fined 5s., with 4s. 6d. costs, for smashing with his cane a glass panel in the door of the premises of the Timothy White Co., Ltd., at 61 King's Road, Southsea. Defendant was also ordered to pay the amount of the damage, 1l. 5s. 6d.

#### Manchester Notes.

Mr. J. J. Wilson, pharmacist, of Oxford Road, Manchester, was married on Wednesday, September 1.

Mr. James Grier, M.Sc., lecturer on Pharmaceutics at the Manchester University, was married at Torquay on Monday, August 30.

Several chemists are making shows of sponges at present. One city firm have a large window full of very fine specimens and an original piece of sponge attached to an old jar, as taken from the sea. One large firm of grocers have several of their shop-windows with notice on, "Arrival of thousands of sponges. 40 per cent. below usual prices."

#### Birmingham Notes.

The Birmingham Dairy Co. are making a special feature of "Curdled milk" as advocated by Professor Metchnikoff, and are circularising the medical profession and the public to that effect. The milk is at sale at all their depôts.

Messrs. Southalls have a very reasonable exhibit in their Bull Street shop-window—all the appurtenances of agriculture, with the products—which, in view of the County Council's exhibits at the various flower shows, ought to stimulate workers and make wax and honey cheap and better.

A writer on "Dangerous Patent Medicines" in the "Mail," "M. G. O.," asks, "Why is the dispensing doctor so completely unchecked? He ought to be compelled to give the formula of the medicine he sends out. This would ensure accurate dispensing and good-quality drugs by rendering practicable an occasional visit by the food and drug inspector."

Many pharmacists in the district will learn with great regret of the death of Mr. Walter S. Bridgwood, which was recorded last week. He served his pupilage with Messrs. Palmer & Co., of Temple Row, Birmingham, and hailed from Stafford. He was a pupil of Mr. F. H. Alcock, and later left Birmingham for Hemel Hempstead, thence migrating to Yorkshire.

Mr. F. H. Prosser, Spring Hill, who is greatly interested in Coleshill and its relics of bygone days, directed public attention to an act of vandalism in connection with them, an ancient library (1693) of valuable books having within the last few weeks been sold to a Birmingham second-hand dealer without even the cognisance of the inhabitants of the ancient place. They had been given by bygone worthies of well-known local name.

According to the "Mail," Mr. E. C. Benison, a representative of the firm of Messrs. Southall Bros. & Barclay, has returned from the Paris Radium Institute, where he secured, in addition to a lot of useful first-hand information, a tube of radium, actinium, and polonium, which are being submitted to local medical men for experiment in the curative art. The "Mail" adds: "It is something to know that the firm of chemists is the first provincial house to take a practical interest in the precious mineral."

There is at present being constructed in Birmingham a machine for the purpose of threading the piece of string through the eye of ordinary luggage tallies, such as are sold in stationers' shops at a penny a dozen. The machine is the invention of a clever young engineer, and is now near completion. The work has been done previously by girls, but this machine will do the stringing much quicker and more effectively, besides having an arrangement for automatic counting in dozens as required. Many large firms find it to their advantage, and a great saving of time, to buy their tallies with twine already attached. Birmingham has several firms who make a speciality of this particular line, and it is to the order of one of these that the machine is being made. It is the first of the kind, and is the subject of a patent.

## Scots News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Dundee.

There was a fire in the Town House on Wednesday morning, September 1, and some damage was done by water to the pharmacy of Mr. John Forsyth, which is one of the shops in the colonnade of the building.



The photograph shows Mr. Charles Kerr, the *doyen* of Dundee Pharmacy, and Mrs. Kerr in the motor-car. Mr. Kerr is fond of travel both at home and abroad.

### Edinburgh and District.

There have been several cases of anthrax among cattle at Musselburgh.

Mr. R. B. Forgan, chemist and druggist, formerly of the Royal Infirmary, Edinburgh, has purchased Mr. W. G. Alexander's business in Portland Place, Leith.

The pharmacist who advertises judiciously is sure to receive an increase of custom. This summer, at a seaport town, a local chemist has sent price-lists, etc., to the chief officers and passengers on all the boats that have put in at the port. A large tourist yacht was also circularised with beneficial results from the pharmaceutical standpoint, many high-class articles, such as souvenir perfumes and tubes of tooth-paste, being disposed of.

### Glasgow.

Mr. D. Reid, chemist and druggist, has purchased the business of Mr. McDonald, Paisley Road, Ibrox, Glasgow.

Pharmacists are complaining bitterly about bad business. It is said that some have had to reduce the salaries of their assistants.

Mr. George Bolus, of the Rangoon Medical Hall, is at present holiday-making in the Old Country. He has been looking up a number of his old St. Mungo friends.

Mr. John H. Macintyre, chemist and druggist, Hyndland Road, Partickhill, has now almost completely recovered from the effects of his recent cycling accident while on holiday in the West Highlands.

Claims against the late Mr. George Hyslop, chemist and druggist, Glasgow, are to be lodged with Messrs. Wilson, Stirling & Co., C.A., 186 St. Vincent Street, Glasgow, or Messrs. Fyfe, Maclean & Co., writers, 115 St. Vincent Street, Glasgow.

The Executive Committee of the Camlachie Liberal Unionist and Conservative Association has decided to call upon Mr. Alexander Cross, M.P., to resign his seat in Parliament. The hon. member, it may be recalled, recently crossed the floor of the House and ceased to receive the Opposition Whips.

### Personal.

Mr. Robert McLean, chemist and druggist, Buckhaven, is leaving for Canada. Mr. McLean was the guest of the

evening at a social gathering in the Anchor Tavern last week.

The employes of Messrs. Wm. Davidson, Ltd., Aberdeen, along with friends, gathered in the Bonaccord Hotel, on Friday, August 27, to bid farewell to one of their number, Mr. J. G. Ness, the local representative of the firm. He leaves to take up a similar position with Messrs. Munro, McLaren & Sutherland, Sundriesmen, Glasgow.

## Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Personal.

Mr. Alfred N. Yoxall, pharmaceutical chemist, medallist of the Pharmaceutical Society, has been appointed teacher of botany, materia medica, and pharmacy, at the School of Chemistry, Botanic Avenue, Belfast.

At Newcastle (co. Down) Regatta and Athletic Sports last week the motor-launch of Mr. Robt. Hastings, pharmaceutical chemist, was utilised as the flagboat of the day. Mr. Hastings himself was one of the judges and hon. treasurer of the regatta and sports.

### Belfast Technical Institute.

The winter session of the Belfast Municipal Technical Institute opens on September 13. Mr. C. J. Still will be the lecturer in general and pharmaceutical chemistry and in botany for pharmaceutical students, and Mr. T. Harper will have charge of the section devoted to theoretical and practical pharmacy, materia medica, and pharmacy for druggists.

### Police-court Case.

A charge of fraud on Mr. W. H. McBride, registered druggist, Woodstock Road, was investigated at Belfast Children's Court last week, when a girl was charged with having obtained goods and money to the value of 6*l.* 8*s.* 7*d.* from him by means of a trick. The girl was stated to have obtained the articles by pretending she had been sent for them for another shop which Mr. McBride owns. The Magistrates adjourned the case.

### Guardians' Affairs.

The Mohill Guardians have sent back to the drug-contractor a sample of liquor arsenicalis, which has been unfavourably reported on by the analyst.

Mr. Foran, Longwood, has informed the Trim Guardians that he cannot see his way to carting packages of medicine from Enfield Station to Longwood Dispensary. He states that he cannot get payment for previous services from Messrs. Clarke & Co., the drug-contractors.

Messrs. Sumner & Co., Liverpool, have informed the Newry Guardians that they have still to receive empties to the value of 3*l.* 11*s.* The contractors also add that they have sent 1*l.* to the caretaker of the dispensary for packing empties valued at 3*l.* 13*s.*; this they consider an over-charge. The Guardians have informed the medical officers that they (the doctors) are responsible for the return of empties.

The Cavan Guardians have been investigating the complaint of the Local Government Board that there has been purchased an excessive amount of drugs during the half-year. The doctor's explanation is that he will not require to order any more drugs during this half-year, so that the expenditure, representing a year's supply, is not really extravagant. The L.G.B. are not altogether satisfied with the explanation, and remind the Guardians that the regulations require that medicines shall be ordered not less frequently than four times a year.

**BRITISH SPIRITS IN U.S.A.**—In the House of Commons on Thursday afternoon, Sir Edward Grey explained, in reply to a question, that the higher charge on British spirits entering the United States, as compared with Continental spirits, is due to the fact that the last-named countries have special treaties in force, which, however, expire within the next few months. The attention of the U.S. Government has been called to this matter on many occasions.



## French News.

(From the "C. & D." Paris Correspondent.)

**CUSTOMS-DUTIES.**—The French Chamber of Commerce in London has, by a letter addressed to the Minister of Finances, protested against the Customs-dues proposed on benzol, benzine, and toluene, and also against the increased town dues which Paris proposes to charge on the same goods.

**MME. GABRIELLE DUDEVANT-SAND**, granddaughter of Georges Sand, who died at the historic Château de Nohant last June, has left a certain sum to the Academy of Sciences to found a "Georges Sand" prize, to be annually distributed "to the author of the most appreciated scientific discovery."

**AMERICAN TARIFF.**—The resentment aroused in France by the United States tariff, to which reference was made last week, has led the Government to issue a decree which, as a reply to a similar measure taken by the United States, repeals all previous enactments which allowed American imports into France the benefit of the minimum tariff. This decree states that from November 1 all goods from the United States will pay the "general tariff"—that is to say, the highest duties chargeable.

**THE ASSASSINATION OF A PHARMACIST.**—Nothing further has transpired since last week regarding the murder of M. Bourillier, the pharmacist of Bois Colombes, referred to in last week's *C. & D.* A few days ago the lugubrious operation known as the "reconstitution of the crime" took place. This consisted in the porter, who committed the murder—or, rather, who confesses to having brought about his master's death involuntarily—being taken to the pharmacy to enact the fatal scene over again. Criminal experts were witnesses of all the porter said and did.

**THE ARM OF THE LAW.**—Gaston Lesobre, a chemist's apprentice, who, with an accomplice, broke into a house at Arvilliers, Somme, and carried off 1,000*l.* of securities and 200*l.* of jewels on August 15, has been arrested in Paris.—A M. Dupont, residing at Argenteuil, near Paris, has brought a charge of poisoning his daughter against a pharmacist of the locality, accusing the latter of causing the death of Laurie Dupont, a child eight years of age. The alleged error consisted in an exchange of labels, on account of which the child is said to have taken a liniment which may have been the cause of her death. On the other hand, the pharmacist denies the charge, and the doctor who attended this child says that in any case, the liniment having consisted principally of camphorated alcohol, irritation might have been caused, but not fatal results. The matter is still *sub judice*.

**OBITUARY.**—The death is announced at Montbéliard, Doubs, of M. Charles Louis Fallot, a leading pharmacist of that town. He was a Knight of the Legion of Honour, ex-Mayor of the town, and a prominent politician in the locality. The death of M. André Pontier, at the ripe old age of seventy-five, removes from our midst a pharmaceutical practitioner who represented the best traditions of the old school, and the author of a remarkable "History of French Pharmacy." This "magnum opus" was published in 1900, and represented some ten or fifteen years of conscientious research and compilation. M. Pontier filled the two highest posts which come within the scope of the ordinary Parisian practitioner, occupying the chair of the Association (Chambre Syndicale) of Pharmacists of the Department of the Seine, and the still more important office of Chairman of the General Association of French Pharmacists. At the 1889 International Exhibition he organised a "Collective Scientific Exhibition of French Pharmacy," and was awarded a gold medal for it. I only knew him in his latter years, of course, and remember him as the type of the pharmacist of the old school, his grey locks surmounted by the usual cloth cap, his manner correct and sober as his dress, gravely courteous rather than expansive, quietly dignified without pretension, always deeply intent on the famous history, of which the publication was deferred from year to year till the cynics were inclined to pass pleasantries on the subject.

**SILKWORM-GUT.**—Dr. Paul Dorveaux's monograph on the history and employment of "silkworm-gut" is particularly interesting to English readers. The first mention of the use of the substance (which is really the "sericigenous organ" or silk-spinning tube of the silkworm) in Europe is to be found in Sir John Hawkins' (1760) edition of Walton and Cotton's "Compleat Angler" (Chapter XXI). It was then a novelty, just brought from China. In most European languages it is identified by a literal translation of the English title (*Seidenwurmdarm, intestino de gusano de seda*, etc.). Gariot, who wrote on buccal maladies (Paris, 1805), recommends silkworm-gut for dental prothesis, and in 1813 George Fielding published, in the "Transactions of the Medico-Chirurgical Society of Edinburgh," an article "On the Use of a New Substance—Silkworm-gut—for Securing Divided Arteries." He was in search of a ligature "likely to be absorbed or dissolved in the animal fluids," when his assistant, E. Heseltine, made this suggestion to him. James Wardrop, another British surgeon, used it a few years later (1823) for the ligature of the carotid artery. In 1844 the "poil de Messine" or "crin de Florence" (other French names for the same substance) figures for the first time in the French Customs tariff, and "since Pasteur and Lister's discoveries" this article "at last occupies the prominent place which Fielding and Passavant had dreamed of giving it for surgical purposes." In 1891 it was mentioned in the "Real-Encyclopedie der gesammten Pharmacie," in 1893 in Dorvault's "Officine," and in 1906 in Martindale and Westcott's "Extra Pharmacopœia." Sir Robert Hart briefly alluded to the Chinese method of preparation in his description of the Ningpo exhibit at the Berlin Fishery Exhibition, 1880. China, Italy, and Spain are still the principal sources of supply for this substance. Dr. Dorveaux is well known as the distinguished librarian of the Paris Superior School of Pharmacy, and his monograph on silkworm-gut is a good instance of his erudition and very painstaking research.

## American Notes.

(From the "C. & D." Correspondent.)

**DR. TAKAMINE**, the discoverer of adrenaline, as Japanese Consul-General in New York, on August 26 conveyed to the acting-Mayor the congratulations of the Emperor of Japan upon the approaching tercentenary of the discovery of the Hudson River. He also offered the city 300 Japanese cherry trees to be planted in one of the city's parks by Japanese gardeners specially sent for the purpose.

**PARK v. N.W.D.A.**—In last week's issue (p. 367) mention was made of the fact that J. D. Park & Sons Co. had obtained an order from the Supreme Court of New York to serve a supplemental amended complaint, fixing the alleged damages against the New York State members of the National Wholesale Druggists' Association at \$3,500,000, instead of \$500,000 as represented when the suit was commenced in 1897. Counsel for the N.W.D.A. has now filed an appeal, the motion on which followed the granting of the right to serve the supplemental complaint as a matter of course; but argument on the motion may not be heard until October.

**DENATURED OLIVE OIL.**—All olive oil imported into the United States upon which free entry is claimed is to be denatured. This is the substance of an order about to be issued by the Customs authorities, who for years have been in conflict with importers of olive oil as to where the line of demarcation is to be drawn between so-called edible oil and that used for manufacturing purposes. Under both the Dingley and Payne Acts, olive oil presumably for edible purposes is taxed 40c. per gal. in bulk and 50c. in bottles, etc., but under the new tariff exemption of duty can only be granted "when olive oil is rendered unfit for use as food, or for any but mechanical or manufacturing purposes by such means as shall be satisfactory to the Secretary of the Treasury and under regulations to be prescribed by him." Under the old regulations much low-grade was imported free of duty, and subsequently sold to the poorer consumers as "edible."

## India and the East.

(From the "C. & D." Correspondent.)

**COCAINE AND OPIUM SMUGGLING.**—A native was fined 16 rs. at the Bombay Police Court for having 16 grains of cocaine in his possession, and another who was found with 60 lb. of smuggled opium was sentenced to four months' rigorous imprisonment, *plus* a fine of 800 rs., or in default five months' more.

**PERSIA TO SUPPRESS OPIUM.**—A despatch from Reuter's correspondent at Teheran, dated August 28, states that the Government has issued stringent regulations restricting the sale of opium, with a view to the ultimate suppression of smoking the drug, which is declared, in a proclamation, to be responsible for the backward condition of Persia.

**OPIUM TROUBLES.**—A Reuter wire from Hong-Kong of August 30 states that owing to the refusal of dealers to obtain the recently revised permit, which they regard as vexatious, the Canton authorities have imprisoned a Chinese opium-merchant, with the result that business is at a standstill. Deliveries from Hong-Kong to Canton have ceased since August 23, with a consequent loss of 30,000*l.* to 40,000*l.* weekly. The British merchants, through the British Consul-General at Canton, have unsuccessfully endeavoured to secure the Chinaman's release.

**LABORATORY TESTS IN JAPAN.**—The "Oriental Physician and Druggist" in its August issue refers at length to the question of laboratory tests on imported goods. It now states, on the opinion of Mr. Kubota, Director of the Sanitary Bureau in the Home Office, that the Japanese Government does not think the establishment of a Board of Appeal is imperative, but may establish it, if the foreign merchants concerned find it inevitable. It, however, requires certain expenditure, and as just now Japan has entered upon a policy of retrenchment there is little hope that the Director will sanction any expenditure, especially as some credits for more important enterprises have been rejected.

**IMPORTATION OF OPIUM AND MORPHINE INTO HONG-KONG.**—The Board of Trade have received a copy of an Ordinance, dated June 25, which amends the law regarding the importation, exportation, and sale of opium in Hong-Kong. Under the present Ordinance, provision is made, *inter alia*, that no person (other than the opium-farmer, by consent of the Superintendent of Imports and Exports) shall bring into the Colony any prepared opium, dross opium, or hulan, and no person may export prepared opium or dross opium therefrom, to any country or place to which it is lawful to export the same, unless permission in writing has been first obtained from the Superintendent of Imports and Exports. Every importer for exportation from the Colony of morphine or any compound of opium shall, on importation, make a declaration before the Superintendent of Imports and Exports as to the place or port of destination, and no such person shall thereafter break bulk or otherwise gain access to the same prior to exportation.

## Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

### The Commonwealth

**ARTIFICIAL CARLSBAD SALTS.**—Under the Commerce Act a regulation has been adopted that after January 1 next the word "artificial" must be printed in the same type as the words "Carlsbad Salts" on the label of imported goods of this kind. The present custom of printing the word "artificial" in smaller characters will not be allowed to continue.

**DUTY ON SAMPLES.**—Travellers' samples, the manufacture or product of the United Kingdom, brought to Australia by way of New Zealand, have not been allowed the benefit of the preferential rates, but the Minister of Com-

merce now directs that when these are *bona fide* and the usual evidence is given that the proper percentage of British labour has been employed in the manufacture of the goods, British preferential duties are to be charged.

### New South Wales.

**A COMPLIMENTARY DINNER** was given at Sydney, on July 8, to Mr. H. S. Brothwood, to commemorate the completion of twenty years' service on the Council of the Pharmaceutical Society and the Pharmacy Board. Most of those present at the dinner spoke, and then Mr. L. P. Williams presented Mr. Brothwood with an illuminated address. The guest of the evening suitably replied.

**SHOP-ASSISTANTS' WAGES BOARD.**—A Wages Board in New South Wales means something quite different from a Wages Board in Victoria. The difference from the Victoria Court is that instead of one judge to decide hearings in all trades, a number of judges have been appointed, with assessors representing the employers and the employés to sit with him to hear cases. In Victoria the representatives of the two sides discuss with each other the points at issue, and do not trouble to take evidence—certainly have no hearings with the counsel examining and cross-examining—and appeal to the Chairman to decide between them if on any points they cannot come to an agreement. The possibility is that the case now under consideration may last for thirty sittings of three hours each, seventy witnesses having to be examined.

### Victoria.

**PURE-FOOD ACT PROSECUTION.**—At Geelong West on July 14, John Whitfield, Coquette Street, Geelong West, registered proprietor of the Vis Vite Remedy Co., Geelong, was fined the maximum amount of 20*l.*, with six guineas costs, for selling his speciality without stating on the package that it contained potassium bromide.

**MR. JAMES LACEY**, President of the Pharmacy Board, sails on August 4 on a visit to the Old Country. He is to bring before the Pharmaceutical Society of Great Britain evidence that the standard of examination in Victoria is such that the pharmaceutical graduates should be given the right to registration in Great Britain, as permitted by the Poisons and Pharmacy Act, 1908. Mr. Lacey was with Messrs. Giles, Schacht & Co., Bristol, for many years.

### New Zealand.

**DUTY ON SERUMS AND VACCINES.**—A deputation from the British Medical Association waited on the Minister of Customs in Auckland on July 14, and secured his promise that the 2½ per cent. duty now charged on serums and vaccines should be removed on the first opportunity of a revision of the tariff.

**GOODS FALSELY DECLARED.**—Recently there have been some cases of fraudulent certification of foreign-made goods, which have been declared as British, in order that they may obtain the benefits of the preferential rates on importation into the Dominion. Exporters are therefore warned that if the goods are found to be falsely declared they will be forfeited, and the importer or agent who makes any false statement in regard to the origin of the goods is liable to a fine of not exceeding 100*l.*, or to a penalty of treble the value of the goods specified in such invoice.

**AN INFANT CHEMIST.**—On June 25, at the Hastings Police Court, Gordon Hill Grant was charged with the following offences: (1) That, not being a registered chemist, he carried on business as a chemist and druggist; (2) that, not being a registered chemist, he used the word "druggist" on his place of business in Heretaunga Street, Hastings; and (3) that he kept open a shop for the purpose of trading on Sunday, June 13. The defendant had passed his examinations as a pharmaceutical chemist. He was only twenty years of age, and had opened a business for himself in Hastings. He was aware that he could not trade as a registered chemist until he reached his majority, and did not attempt to do so, confining himself to the sale of patent medicines. A fine of 10*s.* was inflicted on the first count. The other two charges were dismissed.

**BOLIVIAN BISMUTH.**—The exports of bismuth from La Paz during 1908 amounted to 160 tons, valued at 24,522*l.*, against 153 tons, valued at 74,887*l.*, in 1907; and from Oruro the exports were 259 tons, against 249 tons in 1907.



## Pure Food Act (N.S.W.), 1908.

**T**HE Advisory Board appointed under the New South Wales Pure Food Act has issued the first instalment of the food standards and regulations contemplated by the Act. Many of these regulations refer to the goods sold by pharmacists, and we indicate in the following notes the trend of the regulations. In some cases the standards are the same as those issued by the Victorian Government, which are summarised in an appendix to "Pharmaceutical Formulas."

**Guarantee.**—The forms of guarantee are prescribed which have to be given by individuals and companies, and packed goods may not be sold without a reference to the guarantee.

**Colouring and Flavouring.**—The presence of colouring-matters and flavourings foreign to the food or drug must be indicated in one of three forms: "artificially coloured," "artificially flavoured," "artificially coloured and flavoured." The size of the printing type is indicated. The regulation does not apply to butter and cheese mixed with harmless vegetable colouring-matter.

**Preservatives.**—The regulation (3) dealing with the use of preservatives forbids the use of preservatives other than salt, sugar, spices, wood-smoke, vinegar, and acetic acid except where specifically allowed, and then the quantity and name of the preservative has to be indicated on the package in letters of a certain size.

**Dietetic Essences** are dealt with in Regulation 10. Essence of lemon must contain not less than 5 per cent. of lemon oil, for which the standard is "an optical rotation at 25° C. of not less than + 60° in 100-mm. tube," and "4 parts per cent. by weight of citral." Terpeneless essence of lemon must contain "not less than 0.2 part per cent. by weight of citral derived from oil of lemon." There are directions reserving the use of the words "vanilla" and "vanillin" to the natural products unless associated with the word "substitute." The vanilla essence must contain "not less than two-tenths of one part per centum of vanillin."

**Cocoa**, if a mixture with starch, must be labelled with the proportion of starch present. The added alkali in soluble cocoa must not be more than 3 per cent., estimated as potassium carbonate.

**Vinegar.**—Regulation 16 deals with standards for vinegar, which is defined as "the liquid derived from alcoholic and acetous fermentations." A 4-per-cent. standard is adopted, and mineral acids, lead, arsenic, and copper must be absent. Other varieties of vinegar must be so labelled, and the qualifying word must be of the same size as the word "vinegar." Vinegar substitutes must be so labelled.

**Cream of Tartar.**—The standard is 95 per cent., and not more than 2 per cent. of sulphates, calculated as calcium sulphate. The baking-powder standard is the same as that in force in Victoria.

**Edible Oils and Fats** are dealt with in Regulation 19. The sp. gr. of olive oil is 0.916 to 0.918 at 60° F., refractive index from 1.4660 to 1.4680, saponification-value between 185 and 195, iodine-number not less than 70 or more than 90. There must be no red colour with the Halphen test, and the elaidin test must yield a yellowish-white mass and a colourless liquid. Lucca oil must conform to the olive-oil standard.

**Castor Oil** is to have a sp. gr. of from 0.960 to 0.970, a refractive index of 1.4799, a saponification-value of from 183 to 188, and it must dissolve completely in absolute alcohol and in glacial acetic acid. The size of the lettering on the label is prescribed, and the words "castor oil" have to be followed by the words "for human consumption."

**Arsenic-limit.**—By Regulation 23 no food may contain more than a hundred-and-fiftieth part of a grain of arsenious oxide to the pint or pound.

**Malt Extract** must contain not less than 70 per cent. of solids derived from malt, and is to conform to the characters and tests of the "British Pharmaceutical Codex"; but bakers' malt extract is only standardised in

regard to the solids. Liquid malt extract is to contain not less than 50 per cent. of solids from malt, and malt and oil is to contain 15 per cent. of cod-liver oil. The standard for infants' food is the same as in the Victoria Regulations. Artificial syrups and cordials may contain not more than 1½ grain of sulphur dioxide to the pint.

**Dispensing.**—Regulation 37 deals with drugs, and contains the following clause regarding the repetition of prescriptions:

Every pharmacist who supplies any drug on a prescription or order signed by a legally qualified medical practitioner which contains a direction that the drug prescribed may be supplied a stated number of times, shall each time he supplies the drug write in durable and legible letters on the prescription or order a statement that he has supplied it in the following form: Supplied (here insert the date and the pharmacist's signature).

Chloroform in the proportion of one-fourth of one per cent. need not be indicated, as it would otherwise have to be under Section 5 (K.).

**Use of S.F.M.**—Lin. aconiti, lin. belladonnæ, lin. camphoræ ammoniatum, and lin. saponis may be compounded with methylated spirit, and in the following plasters, liniments, ointments, and oil, cottonseed oil may be used in place of olive oil: Emp. ammoniaci cum hydrargyro, emp. hydrargyri, emp. picis, emp. plumbi, lin. ammoniæ, lin. calcis, lin. camphoræ, ung. capsici, ung. hydrargyri co., ung. hydrargyri nitratis, ung. resinæ, ung. acidi carbolicum co., ung. adipis lænæ, ung. diachyli, ung. calaminæ, lin. mentholis, lin. succini co., ol. carbolicum.

**Use of Australian Wines.**—The following wines may be made with an Australian wine, containing not more than 16 per cent. of ethylic alcohol, in place of the wines officially ordered: vin. antimoniale, colchici, ipecacuanhæ, ferri, quiniæ, aloes, condurango, ergotæ, ferri citratis, ferri et quiniæ, pepsinæ, rhei, opii.

**Habit-forming Drugs.**—The regulations as to declaring the presence of certain drugs and alcohol are similar to those of Victoria, except that arsenic, mercury, and iodine have been added to the list of drugs that have to be declared, and the minimum of ethylic alcohol allowed to be used without declaring its presence is 2 per cent. If more than that amount of alcohol is contained in a package of a drug, the quantity has to be declared unless it is an official article. A. & H. vino pepsin and Benger's liquor pancreatis are especially exempted from this labelling regulation.

## South African News.

(From the "C. & D." Correspondents.)

### Cape Colony.

**BUSINESS** is fairly good in Kimberley, and is improving in the country districts.

**PERSONAL.**—Mr. W. Gasson has returned from his visit to Delagoa Bay, where he was a delegate from the Kimberley Chamber of Commerce at the Convention of Chambers of Commerce. The chief matter under discussion at the meeting was railway rates.—Mr. J. W. Cross, formerly of the Kimberley branch of Messrs. Lennon, Ltd., has now taken charge of the company's pharmacy at Mafeking.—Mrs. H. Magnes Elgar intended to sail with her boy by the *Waratah*, but at the last moment took a berth in another steamer.

**IMPORTERS AND AGENTS' LICENCES.**—H.M. Trade Commissioner in South Africa calls attention to a judgment of the Supreme Court of Cape Colony regarding "licences required by agents of foreign firms." This judgment establishes that a person in possession of a licence as "importer" need not take out a further licence as an agent for a foreign firm, and, moreover, that a merchant or any other individual need not abstain from applying for a licence as an importer until he has imported goods to the value of 1,200*l.* (the amount allowed to be imported before an importer's licence becomes necessary by law), and that the Government must issue an importer's licence at any time on application.

### Transvaal.

**BUSINESS CHANGE.**—Mr. J. E. Furness, chemist and druggist, has purchased the Belgravia branch of Messrs. Smith, Rive & Co., Ltd., Johannesburg, of which business he has been manager for over four years. Mr. Furness went to Johannesburg from North-East Lancashire.

### South African Medical Congress.

THE eleventh annual South African Medical Congress, which is being attended by representatives of the medical profession from all parts of the sub-continent, was opened by H.E. the Administrator, Sir Henry Bale, K.C.M.G., at the Durban Town Hall, on August 2, in the presence of a large and representative gathering. His Excellency was accompanied on the platform by the Mayor (Mr. Charlie Henwood), Dr. H. A. Dumat (President of the Congress), Dr. W. J. Hill (Vice-President), Dr. P. Murison (Hon. Secretary), Dr. G. L. Bonnar (Hon. Treasurer), and members of the local committees. Sir Henry Bale extended a hearty welcome to the delegates, and in doing so remarked on the great progress made in medicine during recent years. It had occurred to him that he might perhaps not unprofitably suggest the necessity for paying even greater attention than had been paid to native remedies, and to the properties of indigenous herbs in South Africa. He referred to the establishment of purely medical scholarships, of which there are none in South Africa so far as he was aware—not in Natal, anyhow. He did not wish to suggest that the medical education of their students should be completed in South Africa, but he did not see any good reason why it should not be commenced in South Africa and completed abroad. His Excellency then declared the Congress open, and was thanked for his presence and address. In the evening the Mayor gave a reception and official welcome in the Town Hall, and at this function Dr. Dumat delivered his presidential address. Having briefly sketched the growth of medicine since the days of Hippocrates, Dr. Dumat spoke of the space medical science and art occupy in the modern social system. He emphasised the fact that the medical man of to-day must be an exponent of both curative and preventive medicine, and although the ordinary layman does not recognise the advantages of public hygiene, sanitation is a necessary part of public organisation, and it is important that it should be adequately supported from public funds. Dr. Dumat, in this connection, recalled his experience as a boy in the 'sixties, when he saw the island of Mauritius devastated by malaria, the population of the capital, Port Louis, being reduced from 80,000 to 50,000—no fewer than 100 succumbing daily in the height of the epidemic. The high death-rate was greatly due to the inadequacy of the store of quinine in the island, but Dr. Dumat considered that had there been proper public health organisation, the ravages of malaria would have been much less. In contrast with this he recalled the malarial epidemic of 1904 in Durban, when an unlimited supply of quinine and vigorous hygienic methods adopted by the Town Council, directed by an intelligent and energetic medical officer, resulted in a small death-rate. The President then proceeded to speak about the qualifications of medical men, and thought he was voicing the opinion of the profession generally in saying that an understanding should be arrived at whereby a licence issued in one part of British South Africa should be valid for practice in any other part of the sub-continent under British rule. Referring to the annual tax payable by medical practitioners in Natal and the Orange River Colony, Dr. Dumat submitted that as a return for this the Government should not allow practice by unlicensed men. He particularly condemned the non-interference of the Government with so-called "health" or "medical" institutes, started by persons without medical training of any sort, and in the same category he included the granting of Letters Patent to individuals for alleged cures of hitherto incurable ailments. The President then went on to speak of the advances in medical treatment during recent years, especially that part of it which had arisen from bacterial investigation. Following this, he referred briefly to military medicine, stating in the course of his remarks on this subject that during the Boer War, for every wounded man admitted to hospital, twenty-two were made unfit for service by purely medical diseases, and two-thirds of the deaths were due to disease as distinguished from violence. In his closing remarks Dr. Dumat referred to the ravages of consumption, and pleaded for better and higher recognition of the services of medical practitioners.

During the week addresses and lectures were delivered upon many medical subjects. Perhaps the most interesting was a paper on

#### TUBERCULOSIS IN SOUTH AFRICA

and its effects upon the natives, by Dr. N. MacVicar. It appeared to him that, although there were a good many deaths registered as being due to consumption, the great majority

were imported cases, and if these were deducted it would be found that the white people in South Africa possessed a very much lower death-rate than that of any European country. Tuberculosis is now most common where civilisation has been longest established, and has apparently followed the main lines of traffic. In the Transvaal, Rhodesia, and Basutoland it is, on the whole, rare. In the Orange River Colony it is now rather common. Natal and the eastern parts of Cape Colony suffer still more, while the centre and West of Cape Colony are the worst. These last-mentioned districts have a coloured mortality from tuberculosis at least four times that of England and Wales. Dr. MacVicar mentioned what other countries were doing in order to stamp out tuberculosis, instancing the decisions come to by the International Congress on Tuberculosis held in Washington last year. At that Congress eight resolutions were passed, among them being compulsory notification of "all cases of tuberculosis" and their registration. Another resolution laid down the opinion that "the conveyance from man to man of tuberculosis infection is the most important source of the disease," and another advocated that instruction should be given in personal and school hygiene under the guidance of qualified medical instructors. In speaking of the first resolution, Dr. MacVicar said that the greatest bar to satisfactory notification was that all cases of tuberculosis had to be notified to a layman instead of, as should be the case, a medical officer. "If the law was altered in this respect it might force local authorities to employ medical officers, and they in their turn would insist upon getting competent sanitary inspectors." He was also in favour of systematic visitation of consumptive patients at their homes on the part of skilled nurses or sanitary inspectors.

Dr. Ernest Hill (Health Officer for the Colony of Natal) read a paper on "Death-rates in Different Sections of the Community in Natal." He took, for purposes of comparison, the death-rates from different causes in groups of persons at the two extremes of the social scale in respect of material prosperity, as represented by European and Indian immigrants respectively.

#### THE EXHIBITION.

In connection with the South African Medical Congress an exhibition of pharmaceutical products was held in the new Town Hall buildings from August 2 to 7, the firms exhibiting including Messrs. Allen & Hanburys, Ltd., Burroughs Wellcome & Co., and Parke, Davis & Co. At the A. & H. stall Mr. H. B. Reddick (Transvaal representative) and Mr. L. E. West (Cape Colony representative) presided, while Messrs.



EXHIBITS BY MESSRS. ALLEN & HANBURYS.

Simpson and Hull looked after the interests of B. W. & Co. and P. D. & Co. respectively. These gentlemen have been highly gratified with the number of orders they have taken, as a result of the large attendance of medical men from all parts of South Africa, and the Congress has proved highly successful both from a professional and a business standpoint. At Messrs. Allen & Hanburys' stand a full range of all their well-known pharmaceutical products was shown, prominence being given to sauerie, soluro, novocain, and dioxogen. There was also a large display of bino-hypophosphites, vapo-cresolene, and antitoxins manufactured by the Lister Institute, for whom the company are sole agents. A very interesting collection of hospital furniture and medical appliances was also on view, a feature being the display of surgical instruments in glass cabinets. A full range of the A. & H. products is carried in stock at their Cape Town and Durban branches, which are managed respectively by Messrs. J. W. and J. S. Tullett.



## Legal Reports.

### High Court Cases.

#### BEECHAM'S PILLS.

BEFORE Mr. Justice Dodd, sitting as Vacation Judge in the Dublin High Court on August 31. Mr. Joseph Beecham, trading as Thomas Beecham, St. Helens, applied for an interlocutory injunction to restrain Mr. Alfred L. Martin, registered druggist, 57 Newtownards Road, Belfast, from selling pills as Beecham's pills which were not made by plaintiff. Mr. Chambers, K.C., for plaintiff, referred to an affidavit made by Robert Johnston, in which it was stated that pennyworths of Beecham's pills were asked for on two occasions. The pills supplied were handed to Mr. Glover, who found they were quite soft when cut. Other affidavits were put in to the same effect from John Joseph Clinton and Elizabeth Jelly. In these cases the pills were tested by Mr. Garner. Mr. Charles Rowed, plaintiff's manager, in an affidavit, stated that the pills supplied had not been made by his firm.—Mr. Johnston, for the defendant, submitted that no case had been made out for an injunction. The fact that a number of persons called at defendant's shop and asked for Beecham's pills, and got pills, did not carry the case far enough. There was no expert evidence to show that the pills supplied were not Beecham's pills. The pills were only tested by cutting with a knife. Defendant stated emphatically that when asked for Beecham's pills he always supplied those pills, which he obtained from Mr. Samuel Gibson, wholesale druggist, Belfast. The test was not a fair one: the pills should have been analysed.—An affidavit by Mr. Harper, lecturer on pharmacy at the Belfast Technical Institute, stated that there are a number of pills on the market resembling Beecham's.—Mr. Justice Dodd said the case was a difficult one, but as he believed plaintiff had made out a *prima facie* case for an injunction until the trial of the action, he would grant it.

In a motion by the same plaintiff against Messrs. Hogg, Sons & Co., Ltd., Belfast, Mr. Tobias, on behalf of plaintiff, applied to have consent made a rule of Court whereby a perpetual injunction was granted against the defendants restraining them from selling pills not made by plaintiff as Beecham's pills. The defendants agreed to pay all costs.—Mr. Justice Dodd made the consent a rule of Court.

In a third case, but against Messrs. Marshall & Co., Belfast, an adjournment for a week was granted on the application of defendants.

## New Companies and Company News.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

**PARINA EAU DE COLOGNE CO., LTD. (P.C.).**—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of Eau de Cologne and perfume manufacturers, chemists, etc. R. V. Wagner is the first managing director. R.O., 34 Gray's Inn Road, W.C.

**KOLYNOS, INCORPORATED.**—Capital stock \$50,000. Registered in Connecticut, U.S.A., to carry on the business of manufacturers of dental and medical preparations. British address, 4 Farringdon Avenue, E.C., where C. C. Gow-Gregor is authorised to accept service.

**F. A. SMITH, LTD. (P.C.).**—Capital 500*l.*, in 1*l.* shares. Objects: To take over the business of a pharmaceutical chemist carried on by F. A. Smith at 35 Colmore Row, Birmingham. The first subscribers are Mrs. E. Smith, 294 Birchfield Road, Birmingham, and F. A. Smith, 35 Colmore Row, Birmingham, chemist. R.O., 35 Colmore Row, Birmingham.

**SAYOTO CO., LTD.**—Capital 100,000*l.* Objects: To carry on the business of manufacturers, importers and exporters of and wholesale and retail dealers in patent, proprietary, and other articles and commodities of personal and household use and consumption, etc. The first directors are J. H. Atterbury, 10 Norfolk Street, W.C., retired merchant, and H. H. Huddleston, 10 Duke Street, S.W., merchant.

**WAKLEY & SONS, LTD. (P.C.).**—Capital 30,000*l.* Objects: To acquire the business of "The Lancet" newspaper carried on at 423 Strand and 1-2 Bedford Street, W.C., and to adopt an agreement with Harriette A. Wakley. The first directors are Mrs. Harriette A. Wakley, Miss A. F. Wakley, and Mrs. G. M. Wakley (all permanent). R.O., 1 Bedford Street, W.C.

**GIBSON BROS. (HULL), LTD.**—Capital 10,000*l.*, in 1*l.* shares. Objects: To take over the business carried on at Hull as "Gibson Bros.," and to carry on the business of paint, colour, grease, and varnish manufacturers and merchants, oil, tar, turpentine, and rosin distillers and merchants, oil boilers and refiners, seed-crushers, etc. The first directors are J. E. Gibson, G. C. Johnston, W. Peacock, and S. Earle.

**BRITISH TURPENTINE CORPORATION, LTD. (P.C.).**—Capital 10,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in turpentine and substitutes therefor, oils, petroleum and products thereof, varnishes, enamels, boot-polishes, chemicals, etc. The first directors are J. McCulloch, Lostock Gralam, Cheshire, chemical engineer; R. Jaffrey, 27 Booth Street, Manchester, master plumber; and J. H. Tomlin. R.O., 6A Devonshire Square, Bishopsgate Street, E.C.

**NEW PROSET SYNDICATE, LTD.**—A circular has been issued stating that a syndicate has been formed, with a capital of 1,000*l.*, for the purpose of acquiring the benefit of an agreement which has been entered into by them with Messrs. Schweppes, Ltd., so as to allow the shareholders of the old company to participate in them.

**MORTGAGES AND CHARGES.**—The following have been filed at Somerset House: *City Mineral Water Co. (Liverpool), Ltd.* Issue of 6,000*l.* debentures.—*Kapsal's, Ltd.* Debenture to secure 500*l.* Holder, G. Swift, The Beeches, Moss Lane, Timperley.

**RECEIVER APPOINTED.**—*Merrill's, Ltd.* M. H. Sykes, 11 Dalgarns Gardens, W., as receiver or manager, on August 18, 1909.

## Gazette.

### Partnerships Dissolved.

DAVIS, I., and SATCHEL, E. P., general medical practitioners, Filmer Road, Fulham, London, S.W., under the style of Davis & Satchell.

JACKSON, R., and BAILEY, W. A., surgeons, etc., St. Helens, Lancs, under the style of Jackson & Bailey.

QUELCH, H. C., QUELCH, H. W., and CROOK, H., wholesale druggists' sundriesmen, Ludgate Square, London, E.C., under the style of Henry C. Quelch & Co., so far as regards H. Crook.

## Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

MR. WILLIAM BROWN, pharmacist, who in 1899 started the pharmacy at 1 Avenue Road, Finchley Parade, London, N.W., for the late Mr. T. H. Bateman, and latterly carried it on in partnership with him as T. H. Bateman & Co., has now acquired the business as sole partner. Mr. Brown was formerly with Messrs. Savory & Moore.

## Recent Wills.

The dates in parentheses refer to the issues of "The Chemist and Druggist" in which the deaths of the testators were reported.

MR. WILLIAM LUCAS, Northampton, chemist and druggist, left estate of the gross value of 2,311*l.* 8*s.* 7*d.*, with net personality 181*l.* 14*s.* 7*d.* (C. & D., July 24, p. 112.)

MR. JOHN REES, Merthyr Tydfil, chemist and druggist, formerly in business at Cardiff, left estate valued at 66*l.* 15*s.* 5*d.* (C. & D., August 21, p. 337.)

CHEMIST (to angry customer, who has complained of the appearance of a repeat prescription): "This mixture was made up exactly as formerly." Customer: "Nothing of the kind, sir. I shall get it sterilised, and prove that to you."

## Births.

**BREMNER.**—At Pharmacy House, Cruden Bay, on August 26, the wife of William Bremner, chemist and druggist, of a daughter.

**GLYN JONES.**—At Endsleigh, Palmer's Green, London, N., on August 23, the wife of W. S. Glyn-Jones, of a son.

**JOSEPHS.**—At 62 Marina, St. Leonards-on-Sea, on August 27, the wife of Philip Josephs, jun. (93 Old Street, London, E.C.), of a son.

**THURSFIELD.**—At 1 Percy Terrace, Sunderland, on August 25, the wife of R. C. Thursfield, chemist, of a daughter.

## Marriages.

**BARNETT-McCARRAHER.**—At St. Peter's Church, Rock Ferry, on August 23, by the Rev. G. E. Barnwell, M.A., A. H. Barnett (Burroughs Wellcome & Co.) to Mabel, second daughter of Mrs. McCarragher, Rock Ferry.

**BIRD-TOWNSEND.**—At Queen's Road Baptist Church, Coventry, on August 26, by the Rev. R. E. Jones, Sydney Harold Bird, chemist and druggist, son of Alderman Frederick Bird, chemist, Spon Street, Coventry, to Evelyn Lucy, daughter of the late Mr. Arthur Townsend, Dover House, Coventry.

**KENT-VENNING.**—At Christ Church, Swindon, on August 26, by the Rev. Canon E. W. Estcourt, vicar and rural dean, Joseph Henry Kent, Ph.C., of St. Helens Pharmacy, Swansea, to Ethel May Venning, of The Heys, Swindon.

**MAUDE-HUTTON.**—At St. Savion's, Leicester, on August 26, by the Rev. W. J. Thomas, William Halliday, only son of the late Charles L'Espoir Maude, of Pudsey, Yorks, and Mrs. Bailey, of Bradford, to Edith E., second daughter of Mr. R. H. Hutton, chemist, Leicester.

**WATT-BREADING.**—At St. Thomas' Church, Streatham, on August 24, by the Rev. E. J. Wolfe, B.A., George Gordon Watt, F.C.S., pharmaceutical chemist, second son of Mr. Peter Cheyne Watt, to Margaret, eldest daughter of Mr. George Andrew Breeding, I.S.O.

### GOLDEN WEDDING.

**PRICE-SOUTHALL.**—On August 31, 1859, at the Friends' Meeting-house, Bull Street, Birmingham, Samuel, son of Richard Fowler and Rachel Price, to Caroline, daughter of William and Elizabeth Southall, all of Birmingham.

## Deaths.

**BATT.**—At 86 Sandymount Road, Dublin, on August 22, Lizzie, wife of Mr. Thomas Batt, member of the Council of the Pharmaceutical Society of Ireland.

**COX.**—At High Street, Quarry Bank, Brierley Hill, Staffs, on August 25, Mrs. Elizabeth Cox, widow of Mr. Edwin Cox, chemist and druggist. The deceased lady conducted the business at 145 High Street, Quarry Bank, for many years after her husband's death.

**CREWDSON.**—At 4 Conishead Road, Ulverston, on August 29, Mr. Matthew Crewdson, chemist and druggist, aged sixty-two. Mr. Crewdson was among the first to pass the Modified examination after the 1868 Pharmacy Act came into force, and had been in business in Ulverston for twenty years.

**HANSEN.**—At Copenhagen, on August 26, Professor Emil Christian Hansen, aged sixty-seven. Professor Hansen was well known for his researches on fermentation and his book "Practical Studies in Fermentation," of which an English translation is published. His method of cultivating pure yeasts caused a technical revolution in the brewing industry, and solved several of the problems which had caused much loss and difficulty to brewers. The studies included rennet ferment, which was brought out in new forms by a Danish commercial firm, and has been largely sold by pharmacists in this country.

**HENCHLEY.**—At Eastney, Portsmouth, on August 18, Mr. Joseph Richard Henchley, chemist and druggist, aged seventy-four.

**McFARLANE.**—At Melbourne, on July 5, Mr. Robert James McFarlane, aged seventy-two. Mr. McFarlane was born at St. John's, Newfoundland, but at an early age went with his parents to Edinburgh and commenced studying for the medical profession. He left Scotland in 1855 for Australia, and for some time engaged in gold-mining. He then acted as an assistant to a doctor, and opened a chemist's business at Fitzroy in 1886, afterwards removing to Melbourne, where he carried on a business in connection with his brother.

**USHER.**—At Doveton Street, Ballarat, on July 16, Dr. J. F. Usher, aged seventy-seven. Dr. Usher was born at Birr, Ireland, and received his medical education at Trinity College, Dublin, and an American University. He went out to Australia in the 'fifties, and became dispenser to the Ballarat Hospital when it was opened in 1856. Two years afterwards he bought a chemist's business, and removed it to Market Square, where it has been carried on since. He was a teacher of materia medica and botany at the Ballarat School of Mines for many years.

**WATSON.**—Recently, during a visit to King's County, Mr. Alexander Forbes Watson, B.Sc., F.I.C., Clondalkin, co. Dublin. Mr. Watson was formerly an examiner for the Pharmaceutical Society of Ireland, and was well known in pharmaceutical and analytical circles in Dublin. His death was due to a fall from a tree, which he had climbed to investigate the secretion of resin.

## Personalities.

**MR. J. S. TULLETT**, manager of the Durban branch of Messrs. Allen & Hanburys (Africa), Ltd., is now in London on holiday.

**MR. GEORGE CULLING**, representative of Messrs. Wm. Toogood, Ltd., has removed from Egremont, Cheshire, to 10 Ryfold Road, Wimbleton Park, London, S.W.

**MR. ERNEST O. JAMES**, who has been on the staff of Messrs. North & Rae, Yokohama, for four years, is now on a visit to the Old Country, and has been in London this week.

**MR. C. A. OSBORNE** has just left for a nine months' visit to Canada, the United States, and Mexico, on behalf of Messrs. Bourne, Johnson & Latimer, 34 and 35 Farnival Street, London, E.C.

A MARRIAGE has been arranged between Dr. Morris W. Travers, F.R.S., and Miss Dorothy Gray. The ceremony will take place at St. Mary Abbott's, Kensington, on Saturday, September 11, at 2 P.M.

**MR. C. B. ROBINSON**, of Messrs. Thomson & Taylor, chemists, Bombay, is now in England on leave. Correspondence for him may be addressed to Messrs. Tulloch & Co., 4 Fenchurch Avenue, London, E.C.

**MR. R. W. DENYER**, senior partner of Messrs. Denyer Bros., surgical-instrument importers, of Melbourne and Sydney, Australia, is at present on a visit to this country, along with his daughter. He may be addressed e/o his agents, Messrs. H. B. Sleeman & Co., 84 Leadenhall Street, London, E.C.

THE INTERNATIONAL MEDICAL CONGRESS was opened at Buda Pesth, on Sunday, August 29, by the Archduke Francis Joseph, who, in his inaugural address, dwelt on the immense services rendered by the medical profession, through individuals, to humanity as a whole. Count Apponyi, Minister of Education, welcoming the delegates, emphasised the ardent eagerness of the Hungarian nation to participate in the common work of humanity, and to co-operate in the gradual realisation of the ideals of human society. After various foreign representatives had spoken, the Congress adjourned, to be re-opened on Monday.—In connection with the Congress, an exhibition of drugs, chemicals, medical and pharmaceutical appliances has been arranged at the Zander Institute by Burroughs Wellcome & Co.



## Westminster Wisdom.

A Record of Parliamentary Progress.

### "QUACK MEDICINES."

The Home Secretary's reply to the question put by Captain Craig on August 26 (*C. & D.*, August 28, p. 372), in regard to "the increase in recent years of the sale of quack medicines" was not available on that day, as it took the form of a written communication, in which Mr. Gladstone said: "I beg to refer the hon. member to the answer on this subject which I gave to the hon. member for North Lambeth on March 12 last. I understand that inquiries are being made, at the instance of the Lord President of the Council, as to whether the practice of medicine by unqualified persons is extending, and as to the effects produced by such practice. These inquiries will, no doubt, throw some light on the question of the use of quack medicines, and I think it will be advisable to await their result."

[Captain Craig was seen by our Parliamentary representative, and stated that several cases had been brought to his notice, one in which an inquest had been held on a child which had died as the result of teething-powders. He added that the difficulty was that in all these cases the duty is payable to the Government, and the Government stamp on the bottles or packets shows that the duty has been paid. Ignorant people, therefore, imagine that because the medicine is stamped with the Government stamp it carries a sort of official sanction as to the nature of its contents. A great deal of harm is done in the matter, he said, and it is his intention to pursue the question still further. What he wants the Home Secretary to do is to appoint a small Commission of Inquiry, as the matter is, he considers, a very important one, and affects a very large number of people.]

### THE NEW LICENCE-DUTIES.

The new wine and spirit duties, of which the Chancellor of the Exchequer has given notice in the way of amending the Finance Bill, practically transform this part of the Bill. Discussion on them commenced on Wednesday, September 1, and continues throughout this week. For the terms of the amendments see p. 408. The amendments are engaging a good deal of attention both in and out of Parliament. On Tuesday evening Mr. Herbert Samuel (Chancellor of the Duchy) received for Mr. Lloyd George a deputation of "off" licence-holders from Edinburgh, Glasgow, Aberdeen, Dublin, Dundee, and Belfast in regard to the new proposal as to the amount of spirit to be sold by retail. It was pointed out that they had no objection to the extra taxation provided that they could be allowed, as heretofore, to sell any quantity, however small, in sealed vessels. Mr. Winston Churchill, as member for Dundee, introduced the deputation, and Mr. Samuel promised to convey the views of the deputation to the Chancellor.

The Scottish and Irish off-licence holders are still uncertain as to their position. They are anxious that their privileges in regard to the sale of spirits should not be restricted by what is known as the "small bottle" amendment of the Chancellor of the Exchequer, and they are trusting that the representations which they have made will have the desired effect.

All doubts as to the intentions of the Government in regard to the amendment were set at rest in the House of Commons on Wednesday afternoon, when Mr. A. Fell asked the Chancellor of the Exchequer if he had made any estimate of the increased amount of spirits which would be sold under the grocers' licences in consequence of the reduced quantities which would be allowed to be sold by the grocers under the proposed amendments to the Bill.—Mr. Hobhouse, replying for the Chancellor, said his right hon. friend had made no such estimate. It is not intended, so far as England is concerned, to reduce the minimum quantities of spirits allowed to be sold under the Finance Bill.

Mr. John Redmond moved to omit Ireland from the operation of the new liquor-licence duties in the House of Commons on Wednesday evening. In the course of his speech he said he was not at all surprised at the fate of the amendment which, through some strange chance, appeared on the paper. He could not see why the Chancellor makes a difference between Scotland and Ireland as to wine. The proposal of the Government with reference to Ireland enables dealers to sell half a pint of

spirits and a pint of wine, while in Scotland they are allowed to sell half a pint of spirits and half a pint of wine. He asked the Chancellor to remove the limitation on quantity altogether, and to keep in the sealing of the vessels.

The Prime Minister, in his reply, said the sealed vessels and the quarter-of-a-quart proposal affects Ireland and Scotland. He promised due consideration to Mr. Redmond's arguments, but he could not possibly accept an amendment excluding Ireland from the scope of the clause. He added that he would decide about grocers' licences later.

### MEAT-PRESERVATIVES.

Mr. John Burns, President of the Local Government Board, in reply to Sir Francis Channing, Bart., who asked if he proposed to issue regulations under the Public Health (Regulations as to Food) Act, 1907, to restrain the use of preservatives to disguise putrefaction in meat, poultry, and fish, and to prohibit the use of formaldehyde, said he had had before him reports made by inspectors of foods on the subject of preservatives in food-materials. Further inquiries and reports on other aspects of the subject are being made, and when they are complete he will give consideration to the whole subject with a view to determining what action should be taken.

### CINEMATOGRAPH FILMS AND DRY SHAMPOOS.

An interesting debate on the Cinematograph Bill took place in the House of Commons on August 25, as briefly indicated in the *C. & D.* Our Parliamentary representative took a complete note of the discussion, and we select from his transcript the notes of interest to our readers:

During the discussion on Clause 1 (provision against cinematograph exhibition except in licensed premises), Mr. T. M. Healy protested against an absurd word like "cinematograph" being stuck into an Act of Parliament. Subsequently, with reference to amendments, Mr. Healy said, "The real truth is that our minds are so absorbed in the Budget, Irish Land Legislation, and the visit of the Czar that we have not had time to look into this proposal, and we do not know where we are."

The italicised words in the clause, viz.:

An exhibition of pictures or other optical effects by means of a cinematograph, or other similar apparatus, for the purpose of which inflammable films are used,

gave rise to a good deal of discussion, as it was feared that magic-lantern demonstrations would be interfered with, and the Home Secretary accepted Mr. Walter Guinness's amendment to leave out the words "for the purposes of which inflammable films are used" [which makes the clause worse!—*Ed.*]. Mr. Healy again gave piquancy to the debate by remarking, "Has this Bill been considered by a Committee? I understand it has not. When there is a Liberal Government in office you have always to look out for these wretched small things which some clerk promotes, for which he will probably get a C.B. If the Tory Party were in office they would not stand this kind of thing." Later he said, "The Bill is, 'To make better provision for securing safety at cinematograph and other exhibitions.' That might include the dry-shampoo case we had the other day. If there is all this danger with regard to these exhibitions, why not punish the owners as you are seeking to punish the man who used something to a lady's head?" Mr. Carlile wanted to know what is meant by "similar apparatus," but no explanation was forthcoming.

Clauses 1 to 7 inclusive having been agreed to, Clause 8 (power to extend the Act to other exhibitions involving the use of any apparatus which may be declared by the order to be dangerous) was struck out, and the remaining clauses were agreed to with slight amendments. The Bill has passed through the House of Commons.

### THE PETROL REBATE.

Mr. A. Fell asked the Chancellor of the Exchequer in the House of Commons on Monday if the forms are now being issued for the return of the petrol-duty, and if he was aware that officers state that repayment cannot be made until the Finance Bill is law. The Chancellor of the Exchequer replied, through Mr. Hobhouse, that forms have been issued to meet the convenience of the public and of the Department, so that repayments can be speedily made when the Finance Bill becomes law. At present the Department has no authority to make any repayment. The resolution of the House of Commons only authorises the collection of the tax.

## The British Association.

THE meeting of this Association at Winnipeg has been a success. After the presidential address by Sir Joseph J. Thomson on Wednesday evening, August 25, the sectional proceedings commenced on the following day, the different Sections meeting in the buildings of the University of Manitoba, the Wesleyan College, and other educational buildings in the city. At a general meeting held on August 27 it was decided that Agriculture should remain a sub-section of the Botany Section, the proposal to make it a separate Section being defeated. The day following was devoted to excursions. On Monday, August 30, the decision to meet in Sheffield next year was confirmed: August 31 to September 7 is to be the week, and the Rev. T. G. Bonney, F.R.S., D.Sc., Emeritus-Professor of Geology, University College, London, was elected President. Dr. Bonney is an hon. canon of Manchester and a Fellow of St. John's College, Cambridge. In the Mathematics and Physics Section Sir Joseph Thomson opened a discussion on the existence of a positive unit of electricity. Professors Rutherford (Manchester), Goldstein and Reichenheim (Berlin) being among the speakers. "Units" has been the leading topic of the whole meeting, and when this Section met the Chemical Section on August 27 the subject was not forgotten. Popular lectures have been given by Professor Dixon, of Manchester, on "The Chemistry of Flame"; by Dr. A. E. Tutton, F.R.S., on "The Seven Systems of Crystal Architecture"; and by Professor W. A. Herdman, F.R.S., on "Our Food from the Waters."

We give abstracts of the two Section-presidential addresses of most direct interest to pharmacists—viz., those by Professor Rutherford and Professor H. E. Armstrong.

### THE ATOMIC THEORY

was the subject of the presidential address by Professor E. Rutherford, F.R.S., of Manchester University, to the Mathematical and Physical Section of the Association. The whole drift of his exceedingly interesting and simply worded address was to show that the results of all the recent work on radium and other radio-active substances add very strong evidence of the correctness of Dalton's view of the constitution of matter. The results of his own valuable work and that of others prove that the chemist's atom is still the smallest unit of matter which enters into ordinary chemical combination. The chemist's atom is not, however, the smallest unit of which physicists and chemists have cognisance. That unit is the electron, a much smaller particle than the chemist's atom. The difference between the atom and the electron appears to be that the first-mentioned unit is a complex structure (built up of particles, corpuscles, or electrons of negative and positive electricity), while the latter is simply the smallest particle of negative electricity which can exist as such. What the electron really is Professor Rutherford did not attempt to explain; but he pointed out that the experimental data obtained go to show that, whatever mass the electron has is due to its electric charge. General experimental evidence indicates that electrons play two distinct rôles in the structure of the atom:

- (1) Electrons lightly attached and easily removed which appear to correspond to the valency bonds of the chemist.
- (2) Electrons which are integral constituents of the interior structure of atoms.

Physicists do not pretend yet to furnish a description of the constitution of the atom, but they know, at least, that helium forms part of the atom of radium, and that, in its flight from radium, it loses a very important character—namely, its electric charge. The greater part of Professor Rutherford's remarks dealt with the experimental work recently performed by physicists to give definite and accurate values of

- (1) The charge carried by an atom.
- (2) The number of molecules in 1 c.c. of any gas at normal temperature and pressure.
- (3) The average distance between the molecules of the gas in the same condition.
- (4) The actual mass, particularly in the case of helium.

He pointed out that it was part of the stock of scientific concepts prior to the discovery of radium to view the free path of the molecules between collisions (assumed under the kinetic theory of gases to take place) as large compared with the linear dimensions of the molecules themselves. No assumption was made as to the constitution of the molecules. Those concepts were not allowed in the past to pass into stock without severe handling, but the kinetic theory had withstood all attacks. The attempt to explain chemical facts on thermodynamical principles without the aid of ideas as to the structure of matter and the theory which postulated its discrete character had completely failed. Electrons, atoms, and molecules, however, if they are of the size deduced from theory (and all reasoning from the results of observation shows agreement as to this), are so exceedingly minute that not even by the ultra-microscope can they be seen. The statement, therefore, that matter in the gaseous state consists probably of spheres colliding with one another is of the nature of a theory conceived, and does not arise from observations made on them or from phenomena perceived by our senses. Confirmation of the theory was obtained, however, from an unexpected quarter. Brown first, and afterwards Gouy, Perrin, and many others, by observation on minute visible particles in various media, demonstrated that these particles collide with one another; and the deduction was reached that there is an equipartition of energy among the particles, just as had been deduced for molecules by the kinetic theory. While it cannot be hoped that scientists may see atoms, Professor Rutherford described how the effect of single atoms can be seen, the famous case of an  $\alpha$  particle deflecting the needle of a galvanometer and producing a visible scintillation on a zinc sulphide screen being cited. The various methods of determining the number of particles in 1 c.c. of helium at normal temperature and pressure were successively described and the computed number stated, together with the computed mass of the atom and the sphere of influence of each molecule. In terms of the gram molecular volume the number of separate particles in any gas at normal temperature and pressure would appear to be represented by

$$\frac{6.19 \times 10^{23}}{[619,000,000,000,000,000,000,000,000]}$$

How wide the field of physics must be realised when the diameter of the sphere of influence of the molecule of a gas is deduced from Rayleigh's theory as to the cause of the blue colour of the cloudless sky.

Professor Rutherford's address affords evidence to the world at large of the validity of the theories which have been developed by the great physicists of to-day to describe the remarkable phenomena unexpectedly thrust before their eyes in the nineteenth and at the beginning of the present century.

### CHEMICAL THEORIES.

For the want of a better title we adopt this for the address given by Professor Armstrong to the Chemical Section, of which he was President before—viz., at Aberdeen in 1885. The experience did not teach him the art of compounding a short address. His discourse would occupy half the space in this issue of the *C. & D.* It was Ishmaelitic in tone, for the Professor is the uncompromising opponent of the ionisation theory of solution, the disintegration of the atom hypothesis, and generally the present-day devil's advocate in chemistry—so the "Athenæum" said last week. After telling the Section to the extent of four octavo pages of type what he spoke about at Aberdeen in 1885, the President took up consideration of "the central luminary of our system—the element carbon," remarking upon the extent to which our conceptions are now guided by geometrical considerations, and referring fully to the tetrahedral properties of the carbon atom. He proceeded to speak about "the materials which we are at present content to call elements," and in footnotes spoke of Lavoisier's naming of oxygen and nitrogen (*azote*), calling attention to the persistence of the last name in chemical nomenclature, and strongly insisting that oxygen is a necessary constituent of all acids, halogen acids being the halogen hydride in combination with *hydron*, the term which he says should be given to OH, in combination, water being a fluid containing multiple



molecules of  $\text{OH}$ , of various sizes. In one of the foot-notes the President said :

If a student see sodium chloride always represented as  $\text{NaCl}$  or, what is worse, in accordance with a growing evil custom, learn to speak of it as *En-ay-see-el*, it becomes difficult to persuade him that probably such a formula is a misleading expression—at all events, in no way the expression of known fact. Nothing could be worse than the tendency which is coming over us to speak of substances in terms of their formulæ instead of by name. It is difficult to understand what can be gained by referring, for example, to carbon dioxide as *Cec-oh-too*. Such vulgarisms and also the substitution of formulæ for written or printed names should be discountenanced on every possible occasion.

He next touched upon radium, its breakdown and emanations. The following quotations indicate what he thinks about it all :

It is not to be imagined that the discovery of radium has put any very novel intensity of power into our hands.

It is right that the public should understand that the statements published have been based on preliminary observations which lack verification.

Until the elementary nature of radium has been placed beyond question, we must hold judgment in suspense even as to the possibility of "elements" undergoing decomposition "spontaneously."

We have been living in a time of sensational discovery—in a period when advertisement is favoured and the desire for notoriety rampant.

We need to return to the healthy times when fearless and frank criticism of all work was deemed desirable.

The classification of the elements was the next subject; then came valency, with a generous reference to Barlow and Pope's correlation of structure with crystalline form, and a straight-from-the-shoulder blow at the electron; after which the ionic "dissociation cult" and their "fine art" in propagating their ideas were the subject of a sneer and an alternative—viz. :

I would substitute for the misleading conception that liquids are comparable in their behaviour with gases the idea that the liquid state is one in which the residual affinity of the negative elements in particular always comes into play and causes the formation of molecular aggregates of various degrees of complexity; moreover, that the alteration in the properties of any given solvent by the dissolution in it of another substance is largely and, in some cases, mainly due to a disturbance of the equilibrium natural to the solvent by an alteration in the proportion in which the several aggregates are present.

By the time the President was half through his address the organic side of chemical science was reached, and occupied practically the remainder. It was a review and an exposition calculated to show the far-reaching nature of organic chemistry; its potentiality for the solution of problems of life, and not a little of the seer's vision in future developments.

## Trade Notes.

MESSRS. WM. GARDNER & SON (GLOUCESTER), LTD., are exhibiting at the Bakers' and Grocers' Exhibitions, which are being held this month at the Agricultural Hall, Islington, London, N.

BOHEMIAN GLASSWARE.—Mr. Joseph Zahradnik, of Miletin, Bohemia, Austria, manufactures ampoules, vials, tubes—indeed, all kinds of chemical, pharmaceutical, and surgical glassware—from Bohemian glass, and will be glad to correspond with buyers of these.

HUTCHINSON BALLOON-CLOTH is to be used to make the envelope of the first dirigible airship ordered for England out of the "Morning Post" fund. It is now being built by Lebaudy Frères; and the Hutchinson Co. (70 Basinghall-Street, E.C.) supply the cloth from their Paris house.

PRICE ALTERATIONS.—The proprietors of Dr. Pierre's Eau Dentifrice announce in our advertising pages that they have been obliged to alter the prices of their dentifrices. This is owing to the combined increase of spirit-duty and cost of labour. The prices are set out in detail in the advertisement.

CHANGE OF TITLE.—Mr. Maurice Smith, pharmaceutical chemist, Kidderminster, has decided to alter the name of

Smith's Curexma Skin Ointment to Healo. Mr. Smith informs us that he is advertising in a hundred weekly papers, and so creating a demand which chemists should be prepared to meet.

THE programme of the day and evening classes at the West Ham Municipal Technical Institute is a book of 242 pages, costing 1d. Particulars of courses in pharmacy and materia medica (by Mr. W. A. Knight, Ph.C.) and instruction in chemistry and physics will prove of interest to local students of pharmacy.

THERMOGENE.—The time for Thermogene window displays is at hand. To encourage chemists to devote window space to this speciality the Thermogene Co., Ltd., 3 Hayward's Heath, Sussex, are offering extra quantities as bonus on orders for thermogene received within the next few weeks. The particulars are given in our advertisement columns.

FIVE BARKS JUBES, which are made by Messrs. Potter & Clarke, Ltd., Artillery Lane, London, E., had a wide popularity last winter as a chest and lung remedy. This is likely to be maintained, as the proprietors have just issued a bright poster for the window which will attract the public and forcibly remind of the five barks jubes. Messrs. Potter and Clarke tell us that they will gladly send a sample packet of the jubes to any chemist who is unacquainted with these winter jubes.

MESSRS. ALFRED COOK & Co., Enfield, print this week in our advertisement section a price-list of the remainders which they have of the special lines in druggists' sundries that they have been offering. The offer may not be repeated, for the principal explained to us that they comprise the last of special purchases which he recently made on the Continent, and they include various items in rubber goods bought before the rise in prices. We have been shown letters from chemists who have bought from the firm expressing satisfaction with the quality of the goods and astonishment at the low prices—as to which readers can judge for themselves by reference to the advertisement.

MESSRS. DAVIES, SONS & Co., manufacturing chemists, Bridge Street, Derby, are now placing on the market a winter speciality under the name of "Lung- tonic," which they present as a "known, admitted, and approved remedy." It is an agreeable preparation, and, in the words of the Act, "the virtues and efficacies" of the ingredients "are known, admitted, and approved of . . . in the relief" of coughs and colds. The 7½d. size costs the retailer 40s. per gross, with his name and address printed on the labels and cartons. A representation of the latter was given in the advertisement on p. 11 of the *C. & D.*, August 28; it is of a yellow colour, the printing on it being in black ink. The firm will send a sample to any buyer, with particulars of the advertising material which they supply.

MR. G. M. CAMPBELL, who is now in London on behalf of Messrs. F. Kemp & Co., Ltd., Sydney, N.S.W., explained to us the other day the reason why the word "chemist" or "chemists" should not appear on labels of medicines, etc., imported into the State. We referred to the matter on July 17 (p. 86), and hazarded the explanation that :

It is not improbable that the Customs authorities may have made a ruling under the Commerce Act in respect to the use of the title in such a manner as to constitute a false trade description so far as New South Wales is concerned.

The fact of the matter is that the Customs authorities (amongst the most subtle ferrets on earth) have discovered that they can rate certain goods higher as advertisements than when they are allowed to pass in their proper class, and they regard the designation "chemist" as an advertisement. On this and kindred subjects Mr. Campbell speaks from personal knowledge, and those interested may see him by appointment.

LIVERPOOL PRICE-LIST.—A new edition of this old favourite has been published, after revision by Messrs. A. C. Abraham, J. Bain, A. S. Buck, H. O. Dutton, J. J. Smith, C. Symes, T. S. Wokes, Harold Wyatt, and G. V. C. Last (Hon. Secretary). It is the fifteenth edition, and is published at 1s. 6d. by H. Silverlock, but may be obtained at that price through wholesale houses. It is a stock-book as well as price-list, space columns being left alongside each

- Anti-Neurasthin, suppliers of (147/40).  
 Bronchitis-kettles, makers of (149/6).  
 "Clarema " Specialities (140/30).  
 Combs, " Bull's Head " trade-mark (150/6).  
 Cooperas, exporters and wholesalers (143/68).  
 Corrugated packing-boxes (145/29).  
 Cotton twines, manufacturers of (112/25).  
 Corks several varieties (143/16).  
 " Croftley Sanatorium " clinicians (144/34).  
 " Croxal " remedies, makers of (144/1).  
 " Fardbank's " Gold Dust " preparations (149/32).  
 " Fitch's " pencils (143/79).  
 " G. M. Junior " safety razor (147/40).  
 " Glycerol Compound, makers of (150/34).  
 " Glen Mills " medicated paper (145/64).  
 Grape wine vinegar, suppliers of (174/15).  
 Harrison's eye-shades (148/44).  
 Heil Chemical Co., British agents (149/62).  
 " Isol, " makers of (147/52).  
 " Lactol, " makers of (150/63).  
 Metal milking-tubes (142/20).  
 Mennen's toilet-powder, makers and agents (148/69).  
 Midwifery-nurses' bags (148/34).  
 " Neuraloids, " proprietors of (148/17).  
 " No. 258 " Eau de Cologne (148/59).  
 Oil-manufacturing machinery (150/16).  
 " Omogo " lozenges, makers of (151/59).  
 Oxylitic, makers of (147/51).  
 Papier " Dido, " makers of (148/9).  
 " Parozone " bleach, makers of (143/59).  
 Populin, natural and synthetic (143/49).  
 Pospisziel stencil-apparatus (149/12).  
 " Ratín, " proprietors of (148/23).  
 Roger's " Liverwort Tar, " etc., proprietors of (150/59).  
 Scotch Oxygen Co., address of (170/64).  
 Stirling's " Aids, " publisher of (147/55).  
 " Sorbefacín, " London agents (149/5).  
 " Sudden Death " insect-powder, makers of (150/62).  
 Terra-Cotta honey-pots, glazed inside (143/50).



## Observations and Reflections.

By "Xrayser."

### The Renaissance of Science,

eloquently suggested by Sir Joseph Thomson in the peroration of his brilliant Presidential Address to the British Association at Winnipeg, is by no means mere poetry, but very literal fact. A few years ago, said the President, a pessimistic spirit was not uncommon, caused by the apprehension "that all the interesting things had been discovered, and all that was left was to alter a decimal or two in some physical constants." Many of us had noticed that the philosophers of the end of the nineteenth century had acquired the somewhat *blasé* tone of having learnt all there was to know, though the depression occasioned by this omniscience was not so apparent. Darwin and Huxley and Haeckel and some other Germans had spoken the last word, and beyond that was only the wilderness of agnosticism. Then came Röntgen and after him Radium, and these two, rather sniffed at at first, were principally responsible for the Renaissance of which Sir Joseph Thomson speaks. How immensely these discoveries have widened the

### Horizon of Scientific Exploration

may be estimated by reading the addresses first of Sir Joseph Thomson himself, then of Professor Rutherford and of Professor Armstrong, the Presidents of the Physical and Chemical Sections of the British Association respectively. It will be seen from these that Radium has opened a new world for the recently satiated investigators, has suggested experiments of the most marvellous delicacy, and, above all, has stimulated the refreshed mental activity of our teachers to an almost reckless tendency to speculations on the venerable but always fascinating topic of the origin and constitution of matter. Professor Armstrong is shocked at this exuberant disposition. "The statements published lack verification," he says, and "would never have been divulged in days gone by, when a sterner sense of duty pervaded our ranks." Thus might the priests of Isis have communed one with another, but the twentieth century is in a hurry to get to the answer to the riddle of the universe, and at least wants to have some clear idea of the purpose of those myriads of electrons rushing wildly about in the interior of the stately atom, and sometimes escaping from its despotic control. Professor Rutherford strives gallantly to restrain his

### Scientific Imagination,

and retain his orthodoxy, but the results of his patient experiments are too strong for him. "These advances in knowledge do not in any way invalidate the position of the chemical atom," he declares; but his atom is evidently a very different sort of article from the one which Dalton conceived. It is still a unit, but to imagine it we must "leave out of account considerations of etymology," and try to realise "a complex system held in equilibrium mainly by electric forces," and, moreover, liable to disintegration. It is difficult to feel confidence in the stability of a thing so constituted. Another delightful instance of the excursion of the scientific intellect into the region of prophecy was Sir Joseph Thomson's anticipation of the perhaps not far distant future when the Desert of Sahara will be crowded with the factories of the world utilising the 7,000-horse power of the sun's rays per acre, with Chancellors of the Exchequer haggling for 20 per cent. of the increased land value. Engineers have often contemplated the gradual transference of industry from Lancashire to the interior of China as our coalfields get nearer to

exhaustion and China's approach development. But apparently China will have to hurry up faster than was reckoned on, or Sahara will not give her the chance of an innings. Surely it is a little bit churlish of Professor Armstrong to grudge us the enjoyment of these prospective attractions, based as they are on observation and experiment. If the mere reveries of subtle minds from Pythagoras to Paracelsus served to brighten the intellect and stimulate ideas, how much more helpful may it not be for the world's futuro keen thinkers to have before them the possibilities dreamed of by the investigators who have already made the twentieth century famous.

### The Off Wine-licence Tariff

as amended by the Government will probably have to be accepted or submitted to by those chemists who have established a trade in medicated wines, though probably in many of these cases the extra pound or thirty shillings will just about balance the little profit resulting from the sales. The new scale will not greatly hurt the grocers, who, if they touch the business at all, deal, of course, in all kinds of wine, and probably sell from ten to a hundred times as much as the average chemist. It is a pity that one of the many societies who have been declaring their burning desire to distinguish themselves in service to the trade has not planned a medicated-wine licence and pressed it upon the Chancellor of the Exchequer. The scheme would probably be denounced as impracticable at first by the Revenue authorities, but, with influence enough behind the proposal to entitle us to demand reasons for the objection, the impracticability would be likely to vanish.

### Sutton & Co.'s Retirement

from the patent-medicine business is noteworthy. Wholesale dealing in these commodities appears to be particularly healthful, at least for the wholesalers themselves, for there are half a dozen of these houses in London, each with more than a century's history, and I believe they all recognise that Sutton and Sutton's predecessors are the oldest of all. I have heard it stated that they were in existence before the Great Plague, and may have purveyed some of the quackeries described by Defoe. Benjamin Okell, to whom was granted a patent for Dr. Bateman's Pectoral Drops in 1726, was a member of the firm before it passed into the hands of the Diceys; and before that, but when exactly, I believe, is not recorded, the firm became the proprietors of Daffy's Elixir Salutis, which was probably first compounded during the Commonwealth. Just now, in view of the princely profits with which the P.A.T.A. provides them, it is mysterious why any of these firms should wish to abandon the business.

### The New U.S. Tariff Act

was reproduced in full in "The Economist" of August 21, and a fearful and wonderful document it is. It occupies more than thirty of "The Economist's" pages, and consists of 718 clauses or "articles," some dealing with single items, some with groups. Even now the actual result gives little idea of the wearisome labour involved in settling each detail, every cent and every description ultimately decided upon having been preceded by a vast expenditure of energy and temper. Presumably there are reasons for the infinite variety which characterises this masterpiece of fiscal composition, but it may be doubted whether the sweet simplicity of the Egyptian system, which imposes a uniform 8 per cent. on imports of all kinds, is not really a more scientific arrangement. Comparison with Egypt is suggested by Article 504, which places "Balm of Gilead," prominently in the forefront of the Free List. So from Pharaoh to Mr. Taft this precious drug has been figuring in drug-lists. Radium appears at the other end of the Free List: it is to be hoped that it will not be many years before there is trade enough in this substance to incite the hunger of American Finance Ministers.

# 'SANITAS-BACTOX'

THE STRONGEST AND BEST  
HOMOGENEOUS  
COAL TAR DISINFECTANT.

GUARANTEED CO-EFFICIENT **20.**

1/- bottles and 5/- gallon.

Full particulars from

The 'SANITAS' Co., Ltd.

LOCKSLEY STREET, LIMEHOUSE, E.

Manufacturers of all kinds of Disinfectants.

## WARRICK BROTHERS.

FRENCH  
and all Foreign  
PROPRIETARY  
MEDICINES  
can be obtained from  
**WILCOX, JOZEAU & CO.**  
49, Haymarket London SW  
Price List on Application  
Special Export Terms  
Foreign Prescriptions  
dispensed for  
Pharmacists

### "THE CHEMIST & DRUGGIST" SERIES.

PHARMACEUTICAL FORMULAS.	Price 10/-, by Post 10/6
THE ART OF DISPENSING.	Price 6/-, by Post 6/4
VETERINARY COUNTER PRACTICE.	Price 4/-, by Post 4/4
THE CHEMIST-OPTICIAN.	Price 4/-, by Post 4/3
ELEMENTARY DISPENSING PRACTICE.	Price 3/6, by Post 3/9
DISEASES AND REMEDIES.	Price 3/-, by Post 3/3
PHARMACEUTICAL TESTING.	Price 2/6, by Post 2/9
GUIDE TO PRELIM. EXAMS.	Price 2/6, by Post 2/9
URINE ANALYSIS.	Price 2/6, by Post 2/9
CHEMIST'S MEDICAL DICTIONARY.	Price 2/6, by Post 2/8
OPENING A PHARMACY.	Price 2/-, by Post 2/2

Published at the Offices of "THE CHEMIST AND DRUGGIST,"  
LONDON, MELBOURNE, AND SYDNEY.

# GRIMBLE'S PURE VINEGAR.

Brewery : LONDON, N.W.

## S.V.M.

METHYLATED SPIRIT  
Also RECTIFIED SPIRIT.

## S.V.R.

Jas. Burrough Ltd. *Cale Distillery, Hutton Road,  
LAMBETH S.E.*

FLETCHERS' FOR TINCTURES, INFUSIONS,  
AND SYRUPS.

## CONCENTRATED

Sole Proprietors:  
FLETCHER, FLETCHER & CO., Ltd.  
London and Sydney.

## LIQUORS

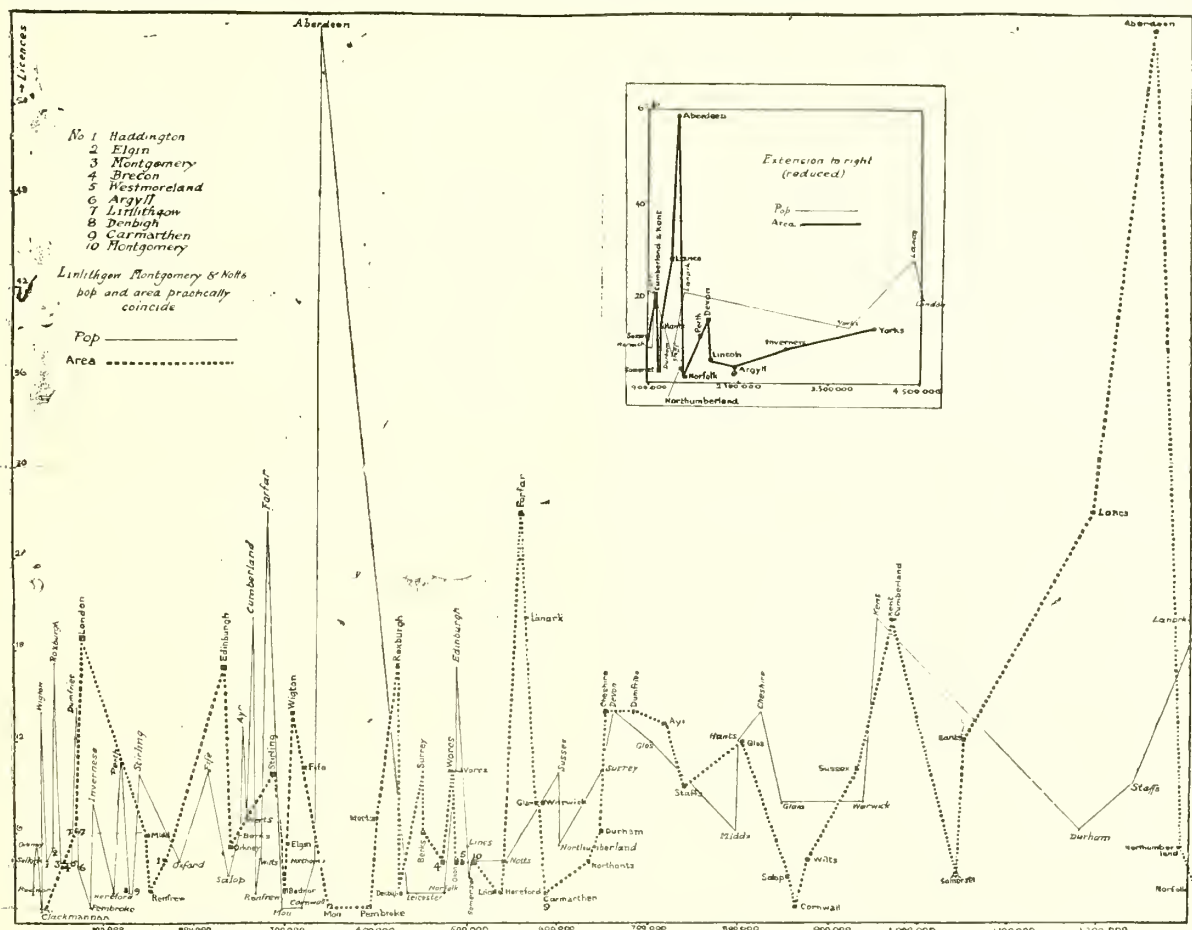
### Agri-Horticultural Licences.

On May 1 we printed an analysis of the applications for licences under Section 2 of the Poisons and Pharmacy Act advertised up to that date, the analysis showing the applicants' occupations and data respecting population. Since then, until the last few weeks, we have devoted from one to three pages weekly to the reports of consideration of applications by local bodies. We have learnt that our analysis has been appreciated by those specially interested in this new departure from established statutory conditions, and we now supplement it with further data which should serve to show the trade exactly how matters stand in Great Britain at present. For Great Britain we have reported 980 applications for licenses, of which 549 have been granted and 111 refused. The following table shows the occupations of the applicants, their numbers, and the grants so far made, some still pending :

Occupation	England and Wales.			Scotland.		
	Appli- cation.	Grant- ed.	Re- fused.	Appli- cations	Grant- ed.	Re- used.
Seedsman ... ..	398	229	16	87	74	3
Ironmongers ... ..	50	18	11	139	102	9
General Merchants and Grocers ... ..	56	24	3	115	68	2
Drug Dealers ... ..	17	3	1	—	—	—
Agricultural Merchants and Agents ... ..	11	5	2	3	1	1
Chemical and Sheep Dip Manufacturers ... ..	7	3	2	7	1	—
Oil and Colourmen ... ..	4	1	1	—	—	—
Wool Merchants & Buyers	3	3	—	3	2	—
Drysalts ... ..	3	1	1	3	1	—
Sheep-dippers ... ..	2	2	—	—	—	—
Blacksmiths ... ..	1	1	—	2	1	—
Hide Merchant ... ..	—	—	—	1	1	—
Oil Refiner ... ..	—	—	—	1	1	—
Agri. Chemist & Perfumer	1	—	1	—	—	—
Unclassified... ..	56	11	16	10	5	2
Totals ... ..	609	292	94	371	257	17

It will be readily perceived that in England and Wales seedsmen form the greater proportion of applicants and





licensees, while in Scotland seedsmen, ironmongers, and general merchants are in fairly equal numbers. It is noteworthy that almost seventy per cent. of the applications in Scotland were granted, and less than five per cent. were refused, the corresponding figures for England and Wales being 48 per cent. of grants and 15.5 per cent. of refusals. Scotland has also dealt with applications more summarily than England, for 76 per cent. of them have been settled one way or the other in the former country to 57 per cent. in England and Wales. The general merchants are usually vendors of food and household and proprietary remedies,

dealers who applied, three will be able to sell highly toxic nicotine insecticides or arsenical dips, but not a "penoth of laudanum" or white precipitate. Taking the applications on a population basis the table in the previous column results, and the facts are more graphically put in diagrammatic form, especially when the names of the counties are given and the curves drawn upon a basis of the licences granted in each county in relation to the population and area in acres of the county. In the diagram reproduced the irregularity of the curves strikingly reflects the diverse attitudes of local authorities in this matter, especially the extraordinary results in Aberdeenshire, Forfarshire, and other Scots counties. We do not propose to comment further upon the diagram at this time, but commend it to the study of our readers. We have been unable to include Ireland in the analyses, as the data are comparatively unimportant up to the present.

Population	No. of Towns, etc.	No. of Applications	No. of Apps. Granted	No. of Apps. Refused	Places without Chemists	Proportion of Chemists to each place
500,000 or over (including London)	5	67	57	5	—	58.6
100,000 or under 500,000	26	91	68	5	—	20.3
50,000 " 100,000	29	54	22	10	—	13.8
20,000 " 50,000	66	171	105	15	—	6.2
10,000 " 20,000	49	106	72	15	—	4.3
5,000 " 10,000	43	89	44	8	1	2.04
2,000 " 5,000	88	142	63	26	6	1.06
1,000 " 2,000	51	63	28	6	15	0.11
Under 1,000 ...	146	157	90	6	131	—
Totals ...	503	940	549	56	—	—

and the future will show if the 92 licensees, mainly in country districts, can vend poisons without danger to the community. A curious point is that of seventeen drug-

## Irish Poor-law Medicines.

THE report of the Local Government Board for Ireland for the year which ended on March 31, 1909, has been published this week, and is obtainable through booksellers for 1s. 9d. It is a Blue-book of over 400 pages, and is divided into the following sections:

- I. Local Government (Ireland) Acts; Motor Car Acts; Old Age Pension Act; Unemployed Workmen Act;
- II. Poor Relief and Medical Charities;
- III. Public Health, &c., Acts;
- IV. Provisional Orders under the Public Health Acts, the Housing of the Working Classes Acts, and the Local Government Acts;

- V. Labourers Acts;
- VI. Loans sanctioned for Housing Schemes, Public Health purposes, &c.;
- VII. Payments from the Local Taxation Account in aid of local rates;
- VIII. Audit;
- IX. Examination of Parliamentary Bills;
- X. Deputations received;
- XI. Departmental arrangements.

At present we have space to refer only to the report by Mr. J. E. Brunker, M.A., Ph.C., advising pharmacist to the Board, on the quality of the medicines, appliances, and surgical instruments supplied for workhouses and dispensaries during the year. Our readers are doubtless familiar with the duties that fall to Mr. Brunker's Department. Analysts to the Guardians periodically examine the articles supplied under contract, and their reports are scrutinised by the Department, and the year's results furnish interesting figures as to the quality of the medicines supplied. The Department periodically revises the lists for tenders, and otherwise checks details having reference to medicines and appliances, as the Guardians are recouped in respect to them if they are approved by the Department and the Board. The cost of medicines and appliances for the year which ended on September 30, 1908, was 27,839l. 16s. 7d., or 356l. 0s. 7d. more (not less) than the year before. The medicines were supplied by the contractors at an average discount of 33 per cent. from the prescribed list-prices, and for appliances the discount was 37½ per cent.; the year before 30 and 36 per cent. respectively were the discounts. We may remark that the prescribed lists do not cover all that the medical officers require and contractors may charge their own price for articles ordered which are not on the list. The report does not show that a check is kept upon such charges. As to the quality of medicines, it is stated that analysts' certificates for 548 workhouses and 2,369 dispensaries related to 9,056 samples of drugs, of which 166 were below standard—i.e., 1.82 per cent., against 1.9 in the previous year, this being the lowest figure yet attained. Of 4,245 spirituous preparations only 35 (0.84 per cent.) were deficient. The unfavourable reports were in respect to 11 acids, 21 liquors, 8 liquid extracts, 23 liniments, 5 mixtures, 3 oils and ointments, 4 pills, 3 powders, 6 spirits, 21 syrups, 51 tinctures, 7 wines, and 7 "sundries"—a total of 170 instead of 166 already mentioned. Mr. Brunker says that only one sample of spt. aether nit. out of 169, and one sample of glycer. pepsin. out of 50, were defective. These results are rather remarkable when compared with the percentages of "adulteration" reported by public analysts under the Sale of Food and Drugs Acts, which are about ten times more. The Irish Poor-law results are more comparable with everyday trading figures, while the public analysts check the quality only of articles purchased because they are expected to be below standard. Three tables are appended to Mr. Brunker's report, in which the extractive and alcohol percentages of tinctures, liquors, and liquid extracts are given, with the numbers of defective samples. *Tr. nucis vom.*, with nine samples in excess of standard strength, and *tr. ferri perchlor.*, with eight samples of excessive strength, are the most numerous "defectives." It is also reported that some appliances, principally surgical dressings, were defective, and the articles were replaced. On the whole, the report shows that Irish Poor-law medical and surgical supplies are good.

### Chemists' Scales.

THE Weights and Measures Regulations made by the Board of Trade in 1907 laid down that weighing instru-

ments brought into use by retail chemists and druggists after September 30, 1907, should be "beam-scales"—i.e., "any equal-armed weighing-instrument, the pans of which are below the beam." Beam-scales are divided into classes A, B, and C, of which A and B are permitted for retail chemists and druggists, and they are described as follows:

Class A includes only chemical and assay balances and other beam-scales provided with means for relieving all the bearings and knife-edges. Class A instruments must satisfy the requirements of the following table, and need not be marked with a class mark:

Capacity of Machine	Sensitiveness when fully loaded	Greatest Error allowed either in excess or deficiency when fully loaded
1 oz.	0.05 grain	0.1 grain
1 lb.	0.1 "	0.2 "
7 "	0.5 "	1.0 "
56 "	1.5 grains	2.0 grains

Class B includes only beam-scales, other than Class A instruments, which satisfy the requirements of the following table:

Capacity of Machine	Sensitiveness when fully loaded	Greatest Error allowed either in excess or deficiency when fully loaded
1 oz.	$\frac{1}{3}$ grain	$\frac{1}{3}$ grain
8 "	1 "	1 "
1 lb.	1½ "	2 grains
2 "	3 grains	4 "
4 "	6 "	6 "
7 "	8 "	9 "
10 "	15 "	12 "
14 "	25 "	22 "
28 "	1½ dr.	24 "
56 "	2½ "	3½ "
112 "	add ½ dr. for each cwt. of capacity	add 1 dr. for each cwt. of capacity
224 "		
Above 2 cwt.		

Such instruments have to be marked Class B.

The conditions of sensitiveness were postponed for two years as regards weighing-instruments in use on or before September 30, 1907. So that on and after the thirtieth of this month inspectors, on inspection, are required, in accordance with the regulation, to obliterate the stamp on such weighing-instrument "if the error exceeds twice, or if the deficiency in sensitiveness exceeds three times, the amount allowed on the verification of Class B instruments." It follows from this that dispensing-scales (say, of 1 oz. capacity) should turn with  $\frac{1}{3}$  grain when fully loaded, but the stamp should not be obliterated if  $\frac{2}{3}$  grain more (i.e., a deficiency in sensitiveness of three times one-fifth) is required to turn the scale; the alternative, however, provides for an error of  $\frac{2}{3}$  grain only, which means that the scale should turn with  $\frac{3}{3}$  grain. We presume that the retail chemist may claim the greater limit, but it is important to note that the regulation does not provide for  $\frac{3}{3}$  grain for sensitiveness and  $\frac{2}{3}$  grain for error. The inspector is also required to obliterate the mark

"on an equal-armed weighing-instrument which, since the last stamping, has been repaired or adjusted; and on any weighing-instrument which, since the last stamping, has been so repaired or altered that it has become necessary to ascertain that the indications of the instrument remain correct throughout its range—as, for instance, when an instrument is altered in design or construction, or when new stays, levers, or springs are introduced."

These conditions may in some cases apply to dispensing and other weighing-instruments which were stamped and in use before October 1, 1907. Inspectors have not had power so far to obliterate the stamps on instruments so repaired or adjusted, but they will after the thirtieth of this month.



### New Licence-duties.

THE Chancellor of the Exchequer has given notice of certain amendments to the First Schedule of the Finance Bill, which deals with the licences to be taken out in respect to spirits, beer, cider, and wine, and in this article we propose to epitomise the changes as regards those points in which persons engaged in the chemical and drug trades are most interested. We take first the licence-duties which the Chancellor proposes to alter from the rates given in the Bill. We add the latter in parentheses to the new rates :

*Spirit-retailer's Off-licence.*

Annual value of licensed premises:		Duty	
		£ s. d.	
Not exceeding £10 ... ..	...	10 0 0	
Exceeding £10 and not exceeding £20 ... ..	...	11 10 0	(£14)
" " 20 " " 30 ... ..	...	14 0 0	
" " 30 " " 50 ... ..	...	15 0 0	(£20)
" " 50 " " 75 ... ..	...	16 0 0	
" " 75 " " 100 ... ..	...	17 10 0	(£30)
" " 100 " " 250 ... ..	...	19 0 0	
" " 250 " " 500 ... ..	...	30 0 0	(£50)
" " 500 ... ..	...	50 0 0	

*Note.*—The corresponding licence ("grocer's") in Ireland and Scotland costs at present from 4*l.* 4*s.* to 14*l.* 6*s.* 7*d.* a year.

*Beer-retailer's Off-licence.*

	Duty
Annual value of licensed premises:	£ s. d.
Not exceeding £10 ...	1 10 0
Exceeding £10 and not exceeding £20 ...	2 0 0 (£3 10s.)
" " " " " 30 ...	2 10 0
" " " " " 50 ...	3 0 0 (£5)
" " " " " 75 ...	3 10 0
" " " " " 100 ...	4 0 0 (£7)
" " " " " 250 ...	4 10 0
" " " " " 500 ...	7 0 0 (£10)
" " " " " 1000 ...	10 0 0

*Note.*—In the Bill the 3*l.* 10*s.* to 10*l.* rates were for beer or wine retailers. A new scale of rates is given for wine. The present rate for the off beer-licence in England is 1*l.* 5*s.* per annum and in Scotland 2*l.* 10*s.* to 4*l.* 4*s.*

*Wine-retailer's Off-licenec.*

	Duty
Annual value of licensed premises:	£ s d.
Not exceeding £20 ... ..	2 10 0
Exceeding £20, but not exceeding £30 ... ..	3 0 0 } (£3 10s.)
" " 30 " " " "	3 10 0 }
" " 50 " " " "	4 0 0 }
" " 75 " " " "	4 10 0 }
" " 100 " " " "	5 0 0 }
" " 250 " " " "	7 0 0 }
" " 500 " " " "	10 0 0 }

*Note.*—The present rate for wine-retailers off (England and Ireland) is 2*l.* 10*s.* without respect to the premises. In Scotland the grocer's off-licence costs 2*l.* 4*s.* 1*d.*

*Wholesale Cider-dealer's License.*

This (5l. 5s. per annum) is to be deleted, also references to it in the "Provisions."

Textual changes are also made in the Schedule, and for the sake of clearness we epitomise these *seriatim* :

*Wholesale Dealers' Licences.*

Clause 1 of the "Provisions" in the Bill states that retail sale is not authorised, and retail sale is defined. This is deleted and an amendment proposed specifying the minimum quantities which a wholesaler may sell at one time to one person—viz., spirits, wines, or sweets, 2 gals. or 1 doz. reputed quarts; beer or cider, 4½ gals. or 2 doz. reputed quarts.

Clause 2 authorises manufacturers to sell by wholesale under the manufacturer's licence; a sentence is to be added making it clear that the sale is "at the premises where the liquor is manufactured."

Clause 6 provides that retailers who desire to sell also by wholesale get a reduction of 25 per cent. on the wholesale licence duty: the reduction is to be increased to 50 per cent.—*i.e.*, wholesale spirit licence will be 7*l.* 17*s.* 6*d.*, beer 5*l.* 5*s.*, wine 5*l.* 5*s.*, and sweets 2*l.* 12*s.* 6*d.*, with a minimum for the two licences of the whole of the wholesale licence—*i.e.*, 15*l.* 15*s.*—for spirits.

### Retailers' Off-licences.

Clause 1 of the "Provisions" defines "sale by retail"—viz., quantities not exceeding those mentioned in Clause 1 of wholesalers above. This remains, but the defining words, "is sale by retail," etc., are removed, and "but not in any larger quantities" substituted.

Clause 2 is: "A retailer's on-licence does not in any case authorise wholesale dealing." This is to be removed, the Bill otherwise ensuring the provision.

The minimum quantity of spirits to be sold by a retailer (off) is reduced from one reputed quart bottle to one-fourth of a reputed quart bottle; and the minimum of wine from one reputed pint bottle to one-fourth of a reputed quart bottle.

The last-mentioned amendment applies to the United Kingdom, but it appears that the Chancellor did not mean it, and on Thursday further amendments were published which will make the provisions read as follows :

A retailer's off-licence authorises the sale by retail of the liquor to which the licence extends for consumption off the premises only.

A person holding the off-licence to be taken out by a retailer of spirits may not sell spirits in open vessels, or in any quantity, less than one reputed quart bottle in England, or less than one quarter of one reputed quart bottle in Scotland and Ireland.

A person holding the off-licence to be taken out by a retailer of wine may not sell wine in open vessels or in any quantity less than one reputed pint bottle in England or Ireland, and less than one-fourth of one reputed quart bottle in Scotland.

The effect of the proposed amendments would be to stop sale in customers' own bottles, and confine sales to the bottled liquors. The alteration of the scale of duties for "off" wine-licences is a concession to the criticisms which have been voiced in this journal, and which Mr. Idris has placed before the Chancellor of the Exchequer on several occasions. We may recall the fact that immediately after the Chancellor's Budget speech we wrote to him in regard to the increased spirit-duties and the "off" wine licence-duty, urging in respect to the latter that the increased duty was serious for chemists, and suggesting the creation of a medicated-wine licence for chemists only (*C. & D.*, May 8, p. 713). This suggestion has, we understand, been considered; but there are considerable difficulties in the way, and the reduced duties are the expression of the Chancellor's recognition of the harm that his first proposals would have done to chemists. The rates of duty are on the average 50 per cent. higher than the present duty, and in the case of the higher-rented premises are still prohibitive. The valuation is to be determined in accordance with Clause 30, Sub-clause 1—namely :

The annual value of any premises for the purposes of any duty charged in the First Schedule of this Act shall be determined in the same manner and subject to the same conditions as the annual value of premises is determined for the purposes of a publican's licence, and in the determination of that value the duty on the licence is not to be allowed as a deduction.

Sub-clause 3 provides that in estimating the value "no increased value arising from profits not derived from the sale of intoxicating liquor shall be taken into consideration." It is doubtful whether or not this applies to "off" wine-licences. We suggest that it should apply, and that efforts should be directed to secure this provision.

### Essential-oil Adulteration.

It may be remembered that Mr. J. C. Umney called attention in our issue of August 14 to a new adulterant of essential oils; he now adds another, terpincol acetate, and a third is intimated by Mr. E. J. Parry, who has isolated from South American oil of petitgrain an adulterant which has all the characteristics of an ethyl tartrate. Neither, so far as we are aware, has hitherto been used for adulterating essential oils, and it is apparent that buyers must ever be on the *qui vive* for frauds of this nature. We do not suppose that there is more adulteration of essential oils than there used to be, but fraud has come into line with modern knowledge of the constitution of essential oils. It was different in the

old days. We had a conversation recently with an experienced traveller, who recalled an incident of twenty years ago, when a pharmacist asked for a quotation for oil of lemon, and when the price was mentioned he said, "Oh, I can buy much better than that," and produced a sample of oil that had cost him a few pence per lb. less. Thereupon the traveller said, "That's all right; I can give you the same oil at a penny a pound less than that, and I'll bring you in a sample to-morrow." In the interval the traveller went to another pharmacist, and at his dispensing-counter mixed equal quantities of absolute alcohol and castor oil, and added the requisite amount of this mixture to his pure oil of lemon. Next day he submitted a sample of this, with one of pure oil and the cheap sample that the pharmacist had, all in bottles of the same size, marked A, B, and C. The one containing alcohol and castor oil was picked out as the best by the pharmacist. Then the traveller mercifully stopped the transaction and explained the position to his customer as a warning never to trust to the nose alone, for in this case the alcohol (being more volatile than the oil) carries with it the lemon odour, and the first impression is that the adulterated sample is more fragrant than the pure. This old-fashioned adulteration is quite as effective as the modern, but is easily detected. What modern adulterators aim at is to defeat the chemical and physical processes of the analyst, as well as the nose expert, and it is deplorable that manufacturers should prostitute science by assisting sophisticators in this manner.

### "C. & D." Jubilee.

Our contemporary THE CHEMIST AND DRUGGIST devotes the first part of its issue of July 31 to commemorating its Jubilee. On September 15, 1859, the first number appeared, and since that time this interesting and useful publication has not only grown in size, but gained in importance. With our congratulations we send to our contemporary our best wishes for a continuation of the esteem which it enjoys from its numerous readers.—*La Parfumerie et Savonnerie Françaises*.

The Jubilee Number is certainly ahead of any issue of the *C. & D.* I have seen, and as an issue of a purely trade journal is unique. I have been a reader for very many years, going back to some of the early numbers. This number strikes me as a triumph of trade journalism, and marks the immense advance in trade requirements since the first numbers of the *C. & D.*, modestly called "A Monthly Trade Circular," appeared, and is proof positive how highly such a journal has been appreciated and supported. I have always read the *C. & D.* with great profit, and have had many a useful hint and much valuable instruction from its pages, and have also been a frequent contributor to its pages, as I believe the success of such a paper can only be possible by the hearty support of the subscribers and the work of the Editor and his staff by the freest exchange of information of general value. One thing has struck me in reading the early development of the *C. & D.*, and that is the great help rendered by men not "qualified" as we understand the term to-day, but possessing good business instincts and sound commonsense; and though the requirements of to-day demand that trained scientific knowledge should be at the helm, it is interesting to have on record the part played in those early days by these men whose natural gifts enabled them to take the part in the history of the *C. & D.* we are now privileged to read. The portraits of these old worthies are most interesting, though one looks in vain for one of the present Editor.—*Wm. Bousfield*.

ASTROLIN is the name of a new migraine remedy, made by Riedel, of Berlin. It is antipyrin-methyl-ethyl-glycolate, a colourless crystalline powder, soluble in water (1 in 10), and given in doses of 0.5 to 1 gram ( $7\frac{1}{2}$  to 15 grains).

FRENCH CELLULOID.—Writing in regard to the manufacture of celluloid, the British Consul at Rouen, in his report for 1908, states that the industry, which for some years has been so prosperous, is passing through a slack period. As a result of the American crisis, the export of finished articles has been very much affected. There has been an over-production, and at the same time a fall in prices.

### Adulterated Petitgrain Oil.

By Ernest J. Parry, B.Sc., F.I.C., F.C.S.

DURING the past month or two a number of samples of petitgrain oil have appeared in London, purporting to be genuine South American petitgrain oils, which, in fact, have been very grossly adulterated. The older forms of adulteration are now less commonly met with, and, as has been pointed out from time to time by Messrs. Umney, Bennett, and myself, the scientific adulteration of essential oils is a matter to which certain chemists pay a considerable amount of attention. The fixing of standards of ester-values, alcohol-values, etc., although necessary in certain cases, has had its evil effect in rendering the adulteration of such oils more easy, and it is now necessary not merely to confine oneself to the estimation of the apparent percentage of such compounds present, but further to examine their nature. A circular has quite recently been issued by a Continental firm of chemical-manufacturers in which the following statement occurs:

We beg to draw your attention to our synthetic "neutral ethers," which is a product suited for mixing with essential oils which naturally have a high ester-content; 1 per cent. of our ethers appears on saponification as 3 per cent. of esters, such as linalyl acetate, and it is absolutely impossible for an analyst to differentiate between such esters and our product.

A sample of this liquid which I examined proved to be the impure ethyl citrate to which attention has frequently been called in these columns. Such artificial esters can, of course, be detected by a full analysis, and have hitherto been found to be either ethyl citrate, ethyl oxalate, or ethyl succinate, as discovered in lavender oil by Schimmel & Co. Petitgrain oil is one of the latest oils to be attacked in this manner. Two samples which I have recently examined had the following characters:

	A	B
Specific gravity at 15° C. ...	0.908	0.902
Optical rotation ...	+8°	+7°
Refractive index at 20° C. ...	1.4622	1.4635
Esters (apparent) ...	48 %	47 %

Before the samples were suspected on their rather high specific gravities and optical rotations, it was obvious from their odour that there was something abnormal about them. This was confirmed by the fact that on boiling with alcoholic potassium hydroxide under a reflux condenser for a few minutes they became turbid, and a deposit was formed which rapidly increased. The amount of the samples at my disposal was insufficient for a very exhaustive examination, but sufficient facts were observed to enable me to be certain of the presence of artificial esters different in nature from those hitherto observed. On saponification with alcoholic potash, driving off the excess of alcohol, neutralising the alkali, and adding excess of sulphuric acid, the residues were steam-distilled, and the distillate collected through a long condenser. Volatile acids were obtained corresponding to less than 25 per cent. of esters in both cases, making it certain that non-volatile acids were in question. On distilling the oils under reduced pressure until 75 per cent. had been distilled, residues were obtained with high specific gravities and low refractive indices. The saponification-residues of 10 grams were allowed to cool, then acidified with hydrochloric acid, and the aqueous liquids separated and concentrated. All the reactions now pointed to the presence of tartaric acid. I am unable to say definitely, but am strongly of opinion that these oils were adulterated with an ethyl tartrate, probably diethyl tartrate. I am attempting to obtain a further supply of the oils, and am preparing specimens of ethyl tartrates for the purpose of comparison, when I hope to be able to identify the adulterant with certainty.

I have also recently met with two samples more clumsily and more impudently adulterated. On determining the physical characters and ester-values of these two oils, I found them to give the following results:

	C	D
Specific gravity at 15° C. ...	0.904	0.9035
Optical rotation ...	+2° 30'	+2°
Refractive index at 20° C. ...	1.4568	1.4559
Esters (apparent) ...	43 %	46 %



On adding alcoholic potash, acid-values of 10 per cent. and 15 per cent. respectively were found, and the addition of aqueous potash to the oils made them semi-solid. The presence of free oleic acid was here almost certain, and after neutralising with solution of potash and extracting several times with ether, the aqueous solutions were found to contain a large amount of soap. This adulterant does not seriously affect the solubility.

Manufacturers of terpineol appear to accumulate a large amount of residues which contain the oxidation and other alteration products of turpentine formed during the course of terpineol-manufacture. This oil can be obtained for a few pence per lb., and is a viscous oil, containing a fair amount of free alcoholic substances, of high specific gravity (up to 0.930) and various hydrocarbons. It has not yet been thoroughly investigated, but it appears to be imported into this country, and is, I believe, used for the adulteration of some essential oils. It will be necessary to watch carefully for its appearance.

## Oil of Bergamot.

By John C. Umney, F.C.S.

A STARTLING CHANGE has come over oil of bergamot. The earthquake in Sicily, and the consequent destruction of stocks of this oil and the damage done to the growing trees, has been responsible for a very considerable advance in price, and although the extreme price of 40s. per lb., ruling in the early part of this year, has now receded to about 17s. to 19s. in first hands, the genuine oil is really scarce and, as now appears to be a natural sequence, the scarcity is leading to much sophistication. This sophistication is taking an ingenious form, the outcome of the scientific laboratory, and not of the dealer, who, however, too frequently appears to be a victim.

It is interesting to review the relative prices of bergamot oil and sweet-orange oil, which in its entire natural condition, or in its partial condition as terpenes, is now finding a place in bergamot oil.

### Approximate Cost of Bergamot Oil and Sweet-orange Oil for Twelve Years

Year	Bergamot Oil per lb. s. d.	Sweet-orange Oil per lb. s. d.
1898 ... ..	7 9	7 0
1899 ... ..	8 6	5 6
1900 ... ..	7 6	6 0
1901 ... ..	8 0	4 0
1902 ... ..	8 0	5 6
1903 ... ..	7 6	5 9
1904 ... ..	9 0	6 4
1905 ... ..	8 6	6 9
1906 ... ..	10 3	8 0
1907 ... ..	12 6	8 6
1908 ... ..	14 0	6 9
1909 ... ..	16s. to 40s.	7 6

In 1895, when I reviewed essential oils in their relation to the British Pharmacopœia and trade (*C. & D.*, 1895, I., 620), especially with the idea of framing characters and tests for the pure oils met with in commerce that might be acceptable in a Pharmacopœia, I gave the characters of pure bergamot oil as under:

Specific gravity at 150° C.=0.882-0.886.

Optical rotation not more than +15° in 100-mm. tube.

Residue not more than 6 per cent. when evaporated on a water-bath.

Esters as linalyl acetate not less than 38 per cent.

Soluble in twice its volume of 80-per-cent. alcohol.

At that time the pure oils varied in rotation from + 8° to + 15°, while the residue after evaporation for two hours of those that could be classed as pure oils was rarely, if ever, below 5.1 per cent. Several oils which were submitted to me during the past month had the following general characters:

Specific gravity at 15° C. ...	0.887
Optical rotation (100 mm.) ...	+19° to +22°
Esters ... ..	41.0 to 41.5 per cent.
Non-volatile matter ...	4.4 to 4.5 per cent.

As the esters appeared to be normal, I was at first inclined to believe that last season's oil might have a higher rotation, but on critically examining the oils, especially in comparison

with samples of known purity, I was struck by a difference in odour and a curious weakness, taking into consideration the high ester percentage. All of these oils were guaranteed pure, but in two instances the guarantee was that of a dealer who made his guarantee on the authority of a seller (in this country), and this solely on the authority of a shipper in Sicily, whom he did not even know.

It is obvious, from the prices that have been recorded, that orange oil and its terpene would now make a profitable adulterant for bergamot oil, but it would reduce the ester percentage and minimise the optical rotation. A splendid body to counterbalance these divergences was forthcoming in terpineol acetate, which has a pleasant but weak odour and the following characters:

Specific gravity at 150° C. ...	about 0.960
Optical rotation (100 mm.) ...	nil
Boiling range ... ..	220° to 230° C.

Commercial samples estimated approximately 90 per cent. of terpineol acetate.

Although manufacturers have ingenuously stated (see *C. & D.*, August 14, 1909, p. 292) that terpinolene has a valuable odour and for that reason they were justified in producing it, such a defence, I am afraid, can hardly hold good for terpineol acetate. This is now being supplied by manufacturers abroad, with instructions for mixing and a statement that an addition of 1 per cent. to the particular oil will raise the indicated ester percentage of the oil, calculated as linalyl acetate, by a certain proportionate amount.

Among the bodies that are being offered in addition to linalyl acetate are ethyl citrate, ethyl benzoate, and benzyl benzoate, the use of which in raising the apparent ester percentage is obvious from the following data:

1 per cent. of ethyl citrate=apparently 2.1 per cent. of linalyl acetate.

1 per cent. of ethyl benzoate=apparently 1.1 per cent. of linalyl acetate.

1 per cent. of benzyl benzoate=apparently 1.0 per cent. of linalyl acetate.

The residues of the oils under notice were seen at once to be abnormally low, and indicated the dilution with bodies leaving practically no residue; and from the physical character and the odour it seemed likely that the oils were mixed with orange oil or its terpene and terpineol acetate. The presence of the terpineol acetate was determined without difficulty by saponification of the oils, the lilac odour of terpineol being then sufficiently marked to be observed, even through the powerful odour of linalool.

I have in my possession samples of undoubted purity of this year's bergamot, and it may be interesting to record their chemical and physical characters—the difference in the odour-value of these natural oils containing 41 per cent. of natural linalyl acetate, as compared with the sophisticated 40-per-cent. ester oils, being most marked:

	1st Sample	2nd Sample
Specific gravity at 15° C. ...	0.883	0.884
Rotation (100 mm.) ... ..	+17°	+17°
Esters ... ..	40.6 per cent.	41.5 per cent.
Non-volatile matter ... ..	5.2 per cent.	5.2 per cent.

From the observations I have made on oils produced this year I am of opinion that the optical rotation is slightly higher than it has been in past seasons, but I believe that any oil having the rotation of over +20° should be rejected, and over +18° should be viewed with grave suspicion. Moreover, any oil yielding a non-volatile residue of under 5 per cent. after drying for two hours on a water-bath should be deemed impure and sophisticated with bodies yielding practically no residue.

Once again we have to deplore the sophistication of a valuable oil, which can only bring about its disrepute, and in the case of bergamot this is certainly undeserved. It is also desirable, I think, to protest once more against the placing in the hands of dealers and others of substances only prepared for sophistication. I was recently informed by a distiller of essential oils that he was unable to obtain in competition an order for a certain pure oil, but the order was obtained by a dealer who purchased the pure oil from him, and a useful adulterant, the profit to him on both of which together was greater than on the sale of his pure article to the eventual customer. Why are manufacturers so blind to their own ultimate interests?

## What is Sweet Oil?

Sweet oil is generally colza oil, but some chemists supply olive oil. The expression has not a definite meaning.—*C. & D.*, August 21, p. 358.

THE above was the answer we gave to a subscriber a fortnight ago, and it was subsequently objected to by a correspondent, who considered that olive oil is the correct thing. To settle the point we asked for postcard expressions of opinion, and from those given below it will be seen that although London is unanimously in favour of olive oil, other parts of the country are by no means of that opinion. It really depends upon the use to which the oil is to be put. In London it would usually be required for dropping in the ear or other medicinal use, but the larger amounts desired for lubricating purposes indicate a cheaper oil.

### ENGLAND.

**Accrington.**—*Re Sweet Oil.* You're right.—*J. S. Snell.*

**Aspatia.**—Colza is generally supplied when sweet oil is asked for in the North.—*J. Pattinson.*

**Baldon.**—I invariably supply colza oil.—*A. Robinson.*

**Barrowford.**—Colza or rape in all cases, except where I learn it is for the ears or some such particular purpose; then I give almond or olive oil.—*J. Swinglehurst.*

**Birkdale.**—"Sweet oil" during my apprenticeship at Thirsk, in York-shire, and subsequently as assistant in Plymouth, Warrington, and Southport, and also for the last ten years in business for myself in Birkdale, in ninety-nine out of a hundred cases meant colza oil.—*Charles Hare.*

**Birmingham.**—We generally give olive, and sometimes colza—it depends upon the purpose for which it is required. We give olive for best sweet oil. We understand that sweet oil should be a vegetable oil, and on no account either animal or mineral.—*Brown & Piddock.*

**Bootle.**—In this part of the world sweet oil is generally colza. If a doctor orders it—and Irish doctors often do so—it is olive oil.—*Harold Wyatt.*

**Borrowash.**—Have always known "colza" to be supplied. Over thirty years' experience North, Midlands, London, Liverpool.—*G. A. Parkin.*

**Boston.**—I was for some years general manager for a firm having fifty shops in towns from Lancashire to Middlesex, and also with another firm having fourteen shops in the Midlands. In past years I have been with several chemists with one shop. In every case colza oil was sold as sweet oil, except when specially mentioned that it was for the ears or for scalds, when almond oil or olive oil would be supplied.—*H. R. D.*

**Bradford.**—Colza oil given as sweet oil, unless customer states that it is for use in ear, then ol. amygd. dule.—*A. F. Taylor.*

**Brighton.**—Sweet oil is second quality olive, then nut or cottonseed oil. Colza generally sold as lamp oil before paraffin came into use.—*J. R. Marten.*

**Bromyard.**—Sweet oil—olive oil; common sweet oil—colza oil.—*J. B. Davies.*

**Castletford.**—My experience is that colza oil is wanted when sweet oil is asked for.—*T. C. Birds.*

**Chelmsford.**—My experience is that ol. olive is generally given, and colza when it is required for common purposes.—*F. L. Nichols.*

**Chippenham.**—For "sweet" oil I usually give colza, but sometimes, after inquiries to purpose, I give olive. Sixty years' experience.—*A. B. Fudge.*

**Christchurch.**—An experience of nearly twenty years gained in North Hants, Cheshire, Oxford Street, W., Romford, Southsea, Woolwich, Southampton, Berkshire, and for a while with the C. S. Co. in London, has always been ol. olive. I was at one time a purveyor of oil, rapeseed.—*T. W. H.*

**Croydon.**—Your opinion would probably be correct in Northern counties, but ol. olive is generally understood in the South.—*G. A. Butty.*

**Derby.**—I was in business more than forty years, commencing in 1860, during which time rapeseed oil was always sold as sweet oil, colza being always reserved for lamp. *R. Steadman & Co. Ltd.*

I should like to mention I should like for sweet oil, but if for dropping into the ears I should give best olive oil.—*R. H. Seaton.*

**Driffield.**—I have been in business here forty-two years, and always supply colza oil when sweet is asked for, which is what my customers require.—*L. B. Ross.*

**Hadfield.**—A varied experience of thirty-four years tells me that two distinct oils are known by this name—colza for burning, lubricating, etc.; olive for medicinal use. I generally ask if the best sweet oil for medicinal use is required, or the ordinary for burning, lubricating, etc.—*J. Richardson.*

**Halifax.**—You are quite right. Colza oil is generally given, olive oil sometimes; even ol. amygd. is sometimes given in cases of earache, and is asked for as "sweet oil for the ear."—*H. C. Brierley.*

In Norwich, Yarmouth, Lincoln, Nottingham, Bradford, and Halifax I have always sold colza oil, never olive, when asked for sweet oil. Forty-two years' experience.—*G. M. Cobb.*

**Harborne.**—In Lancashire and Yorkshire twenty years ago we gave colza oil. There and now I find olive oil is meant.—*G. Knowles.*

**Ha wkhurst.**—My experience of the retail trade dates from 1860 in all parts of England. During this long period of forty-nine years I have never known anything except colza oil to be sold for sweet oil.—*Alfred P. Preston.*

**Hednesford.**—My experience (thirty-two years) is: the North, colza only; Midlands, either colza or olive; South, ol. olive only.—*Charles Ellison.*

**Highbridge.**—Have always seen demand for sweet oil met with olive oil.—*Fred Orchard.*

**Ilfracombe.**—In Manchester and district sweet oil always meant colza. When I came South I found olive oil was always meant.—*C. Thornley.*

**Jarrow.**—I have been twenty-five years in the trade, and always understood sweet oil to be colza; never knew olive oil given.—*M. W. Tweddell.*

**Kettering.**—My experience agrees with yours *re* sweet oil. I supply colza as a rule, but it depends for what purpose it is required. I am guided by that.—*H. S. Cox.*

**Kingston-on-Thames.**—Colza given for sweet oil in York-shire and North, olive in London always.—*E. S. Baynes.*

**Leeds.**—In the East and West Ridings brown rape or colza is sold as sweet oil during the last forty years to our knowledge.—*R. S. Brownhill & Sons.*

During the fifty years and upwards that I have been in the Trade I have always sold "refined rapeseed," otherwise known as "colza oil," as sweet oil.—*E. Yewdall.*

**Liverpool.**—Should say nineteen times out of twenty or more colza is supplied. My customers frequently state the use; occasionally I think olive is indicated, but not often.—*G. W. Gibson.*

**London.**—In the course of a long experience (more than forty years) I have never known other than olive oil to be sold as sweet oil.—*Chas. B. Allen.*

Twenty-five years' experience, and have never heard of colza being given as sweet oil. Sweet oil and olive oil I have always regarded as synonymous.—*Charles W. Andrew.*

I have always given ol. olive sec. when asked for sweet oil.—*Albert N. Beck.*

Sweet oil is always ol. olive in high-class pharmacies is our experience of thirty years.—*Davies & Long.*

After about thirty years' experience in most pharmacies ol. olive is supplied, though as sweet oil any ordinary nut oil or cottonseed may be delivered. I have never heard of colza being served as this.—*William Felton.*

Sweet oil usually in provinces equals colza; in London, olive oil.—*D. Hardie.*

Colza oil is always supplied in the North for sweet oil, and olive oil in the South only. Likewise there are two customs with the gill measure—in the North there are two to the pint, and in the South four.—*E. M. Haslam.*

For sweet oil we have invariably seen olive oil sold, and colza oil never.—*J. H. Lewis, Ltd.*

You are quite wrong in your remark and surmise about colza oil being sold. Sweet oil, salad oil, olive oil, and nut oil are generally understood and sold as of one family—viz. olive oil—colza oil being recognised as a lamp oil, a totally different thing.—*J. C. Meacher.*

During the whole of my experience (over thirty years in London) I have always given ol. olive for sweet oil, and I never heard of anyone doing differently until I read your note a few days back.—*T. T. Nicholson.*

When asked for sweet oil have always supplied best olive oil, as, I take it, it is often used for making salad. Eighteen years' experience.—*C. Norfolk.*

In parts of Devon colza oil is sold as sweet oil for machinery.—*J. Pellew.*

After thirty-five years' experience I always give olive oil for sweet oil.—*Fred E. Tozer.*

With an experience of over fifty years I have never heard of colza oil being sold as sweet oil; my slip label is printed



"Sweet Olive Oil," as this does for either "sweet" or "olive" as asked for.—*E. Anstee Turner.*

**Manchester.**—In my experience of thirty years colza oil has always been given when sweet oil asked for.—*F. W. Bates.*

During thirty years' experience I have always understood this to mean colza or fine rape oil, and when sweet oil has been ordered from me I have always acted accordingly without receiving any complaint.—*T. Davies.*

Whenever sweet oil is asked for colza oil is generally given.—*J. Tipping.*

**Market Rasen.**—For forty years I have invariably known rape oil sold for sweet oil.—*W. B. Jevons.*

**Monkwearmouth.**—During my twenty-five years' experience in the North colza oil has always been supplied for sweet oil.—*E. R. Cherrett.*

**Newburn-on-Tyne.**—During nine years in business we have always given colza oil.—*J. T. Bell.*

**Newcastle-on-Tyne.**—We understand sweet oil to be colza in this part; the term may apply to both oils.—*R. Wright.*

**Nottingham.**—When sweet oil is asked for by a native of this district, colza oil is always intended. We have a goodly number of immigrants from other parts of the country, and occasionally one of these asks for olive oil under the name of sweet oil.—*William Gill.*

During the twenty years I have spent in the trade I have had a fair experience of assistants. When sweet oil has been asked for I have noticed they all (with one exception) have given colza oil.—*R. Hunt.*

**Seaham Harbour.**—I have been accustomed to give colza in one establishment, olive in another. In the one establishment it would generally be for machinery or burning, in the other for medicinal use. Now I give one or the other—if to be taken, olive oil.—*W. Forster.*

**Sheffield.**—During my twenty-four years' business experience in various places colza oil has usually been supplied, olive oil very rarely, and only when the best sweet oil was specially asked for.—*F. Medley.*

Speaking for Yorkshire, sweet oil generally means colza. Twenty years' experience.—*F. H. Riding.*

Undoubtedly ol. olivæ should be supplied.—*H. G. Williams.*

**Southampton.**—My experience is that colza oil is generally given for sweet oil.—*W. H. Brown.*

Olive oil or nut oil; certainly never colza oil.—*W. J. Dodridge.*

**Southport.**—For twenty-five years I have always understood sweet oil to mean fatty oils, or those that contain glyceryl, in contradistinction to essential oils. Have always sold colza for common, olive for better, and almond oil as best, sweet oil.—*W. T. Kaberry.*

**Stafford.**—Colza oil is invariably given for sweet oil in this district when required for common domestic purposes. If it be known that it is required for particular purposes such as "ear-drop," "oiling delicate instruments," and machinery, then olive oil is supplied. Of late years mineral oils are frequently given when sweet oil is asked for, for oiling heavy machinery, especially agricultural machines.—*J. Marson & Son.*

**Sutton Coldfield.**—Refined rape oil or French or German colza oil is mostly sold when sweet oil is asked for in the Northern counties. I have never once sold olive oil as sweet oil, but thousands of times as above.—*W. Bousfield.*

**Totnes.**—In Norwich we gave colza oil for sweet oil. Down here sweet oil is olive oil, and never colza.—*W. F. Turner.*

**Tuxford.**—For nearly fifty years I have always supplied colza oil when asked for sweet oil, except when told it was required for the ear; then olive oil is meant.—*R. J. Atkinson.*

**Wakefield.**—My experience regarding sweet oil is that whenever it has been asked for colza oil is wanted and supplied. I have never once been told olive oil was required.—*Harry Dunn.*

**Watford.**—Have been in five shops, and never heard of anything but ol. olivæ being given for sweet oil.—*W. Jones.*

**West Hartlepool.**—Colza oil is generally given here for sweet oil.—*J. Emerson.*

**Whitby.**—Have sold many hundred gallons of colza or refined rape oil as sweet oil for farmers' use, etc. In practice, for small quantities, we always ask whether best or common is wanted—viz., olive or colza.—*John Brooks.*

**Wigtown.**—Colza oil is always supplied here for sweet oil.—*A. Nicolson.*

**Wilton.**—After ten years' experience in England and thirteen years in South Africa, I have never seen or employed

colza oil when asked for sweet oil. In the latter country sweet oil is largely taken mixed with castor oil—invariably by the Dutch—and colza oil cannot be supplied. Olive oil is sweet oil.—*W. R. Badman.*

**York.**—I go back more than forty years. From 1863 onwards, I should say, sweet oil has always been colza oil, especially in agricultural districts for all farm or garden uses. It just depends what it is wanted for. Sweet oil to drop into the ear would no doubt be olive oil. That's where "experientia docet" comes in.—*E. B. Kendall.*

We always understand and supply colza or rape oil, and we believe the same understanding exists throughout the wholesale trade. We find on reference to Gray's "Supplement" that originally the droppings and foots of olive oil were known as sweet oil and used for machinery purposes, but Cooley in his "Encyclopædia" states that rape is known as the common sweet oil of commerce.—*Raimes & Co.*

## SCOTLAND.

**Aberdeen.**—Have never seen anything except colza oil given for sweet oil.—*Anon.*

**Dundee.**—During sixteen years' experience in various parts of the country I have always seen colza oil sold as sweet oil.—*J. R. McHattie.*

**Edinburgh.**—I have been accustomed to sell colza oil when sweet oil is asked for ever since I have been in the business—now more than thirty-five years.—*Peter Boa.*

During a travelling experience of over twenty years, I have always understood sweet oil to mean colza.—*J. H. Davies.*

**Montrose.**—I have known colza oil to be given for sweet oil, to my own knowledge, for nearly twenty years, and such was the custom in the business I refer to for a generation before that period. Olive oil would not suit the purposes sweet oil is used for in country districts, and could not be sold at the price—8d. and 9d. for quart (1/6 gal.) bottles.—*X.*

## IRELAND.

**Belfast.**—During an experience of over thirty years in good houses, one being a first-class wholesale and retail chemist and druggist dealing in all classes of oils, I have never known olive oil given as sweet oil, it being invariably colza oil, or in some places the drainings of the bottoms of casks of various oils mixed, sweet oil being a synonym for a cheap common oil.—*Jas. D. Carse.*

During my eleven years' experience I have always understood sweet oil to mean colza oil, and sold it as such. I am quite sure that is what is always given in Belfast.—*James Dundee.*

Colza oil is always sold here when sweet oil is asked for, and I have never sold olive oil for sweet oil, and I have had almost twenty years' experience in the trade.—*A. M.*

**Carriek-on-Suir.**—I always have been in the habit of supplying colza oil as sweet oil during a business career of over thirty years.—*J. T. Turner.*

**Cookstown.**—As a pharmaceutical chemist for over thirty years, colza oil is what is always supplied for sweet oil.—*S. McKinney.*

Mr. John Jarvis, Pau, Basses-Pyrénées, France, writes: In 1856-61, during my apprenticeship, we sold as sweet oil the drippings from the oil-cisterns except those from the boiled linseed oil.

## New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books printed in Great Britain can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Aikman, C. M. *Milk: Its Nature and Composition.* Third edit. 7½×5. Pp. 204. 3s. 6d. (Black.)

Allsop, F. C. *Telephones, their Construction and Fitting.* 8th edit. 7½×4½. Pp. 230. 3s. 6d. net. (Spon.)

Ash, E. *Hypnotism and Suggestion.* 2nd edit. 7½×4½. Pp. 152. Boards. 2s. net. (J. Jacobs.)

Bandelier, Dr., and Roepke, Dr. *Tuberculin in Diagnosis and Treatment.* Trans. by E. C. Morland. 6½×10. Pp. 190. 7s. 6d. net. (H. Kimpton.)

Healey, Elizabeth. *A First Book of Botany.* 7×4½. Pp. 150. 1s. 6d. (Macmillan.)

Johnson, W. H. *The Cultivation and Preparation of Para-Rubber.* 2nd edit. 8½×5½. Pp. 190. 7s. 6d. net. (Lockwood.)

Parry, L. *Systematic Treatment of Metalliferous Waste.* 8vo. 5s. net. ("Mining Journal.")

## Canadian Pharmaceutical Association.

THE Sanitarium Hotel Auditorium at Banff, Alberta, was the scene of the second annual Convention of this Association on Wednesday, August 4, and for natural exquisite scenery no better location for a summer meeting in Canada for pharmacists could have been chosen. Mr. G. E. Gibbard (retiring President) congratulated the Executive on this choice. The Convention lasted three days, with sessions morning, afternoon, and evening.

About thirty were present, and of these fifteen were delegates, each province of the Dominion being entitled to two representatives. The meetings were pleasantly varied by the kindness of the Saskatchewan and Alberta Pharmaceutical Association, who gave a motor-boat ride one afternoon up the river Bow, and on another a drive in brakes around Banff, taking in the principal points of interest in the National Park, the herd of buffalo, elk, museum, zoo, natural sulphur baths, and basin and falls.

The formal proceedings commenced with

### A PRESIDENTIAL ADDRESS

by Mr. Gibbard, in which he referred to the fact that the "drug habit has not as yet acquired any appreciable

of the Queensland Board of Pharmacy for an "Imperial diploma," concluding by saying that the Canadian Pharmaceutical Association has a work to perform in labouring for an "All Canadian diploma" as its quota to Imperial reciprocity. Speaking of standards, he said, "It appears to me our Government could very profitably reorganise the department at Ottawa, copying very closely the Chemical Bureau of the Department of Agriculture at Washington, where the laboratory is under the direction of skilled, equipped, and trained pharmacists." He advocated the amendment of the Patent-medicine Act to provide for a fully qualified pharmacist being in charge of the laboratory of every patent-medicine manufacturer. A highly instructive address concluded with the following remarks as a review of the work accomplished, and in spite of the number of suggestions offered last year:

Prices are still cut in patent medicines.

The manufacturer and jobber still continue to charge us the long price.

We are still consuming alcohol which pays the distiller 250 per cent. profit.

And we are still neglecting to profit by utilising to the fullest extent our richest commercial asset—the pharmaceutical knowledge and training which we possess.

And we are still hewers of wood and drawers of water for the nostrum-proprietor; actively employed in providing him with palatial houses, floating palaces, and \$10,000 automobiles.



Front Row (reading from left to right): G. H. Graydon, Edmonton; Robt. Martin (Vice-President), Regina, Sask.; John E. Tremble (Secretary-Treasurer), Montreal, Que.; W. Young, Winnipeg, Man.; Chas. Nelson, Vancouver, B.C.; J. W. Morrison, Anvers, N.S.; Joseph H. Emery, Victoria, B.C.  
Second Row: R. M. Johnson, Charlottetown, P.E.I.; James Findlay, Calgary, Alta.; Ferguson, Woodley, Sask.; G. E. Gibbard (Ex-President), Toronto; Miss Simpson, Innisfail, Alta.; Henry Watters (President), Ottawa; E. Clinton Brown, St. John, N.B.; J. D. Higginbotham, Lethbridge, Alta.; Hon. G. E. Hughes, P.E.I.  
Back Row: W. R. Kodd, Sackville, N.B.; W. Leonard, Winnipeg, Man.; J. G. McFarlane, Wm. Hawker, St. John, N.B.

hold on our people, and that the geographical and climatic conditions do not lend themselves to the rapid growth of the pernicious slavery which has secured such a grasp on portions of the Eastern countries and the United States." He pointed out, however, that in spite of this it is wise to be prepared to erect a defence, the ounce of prevention being applied through the medium of preventive legislation. Speaking of education of students of pharmacy, he deprecated the multiplying of poorly equipped schools of pharmacy throughout the Dominion, and was of the opinion that the existing colleges—namely, Manitoba, Ontario, and Montreal—with the Laval College at Montreal, are quite sufficient for the needs of the students, and enough to produce "results such as are demanded by the present advanced standards in other countries, and such as would hasten the accomplishment of the purpose dear to the heart of every Canadian, an All-British diploma." With reference to reciprocity of diplomas, the President advocated immediate action in promoting a satisfactory scheme which will "include every province," and dwelt upon the wish

Among the more generally interesting

### BUSINESS DONE

was a resolution to take steps to obtain adequate recognition of the professional standing of the pharmacist in the Military, Marine, and N.W. Mounted Police Force of Canada, the Executive being instructed to communicate with the Federal Government requesting that proper status be provided, and the appointment of trained and legally qualified pharmacists for the positions. It transpired in connection with this resolution that the pharmacist is graded as "Sergeant Steward Compounder" in the Militia (Canada) and ranks with the band-sergeant, farrier sergeant, etc.

Another important piece of business resulted from a paper read by Mr. Henry Watters, of Ottawa, advocating a course of study by means of lectures through the mail from some reliable College of Pharmacy, and under the guidance of a Preceptor measured out to the student of pharmacy. This was approved of by the committee.



Consequent upon the experience which Winnipeg druggists have had with Messrs. Edminson, Bates & Co., proprietors of Chase's Remedies, the following resolution was discussed and adopted:

That the Canadian Pharmaceutical Association assembled has duly and fully considered the existing and increasing cut-rate evil, and, having concluded that a policy of exclusion is the only method to effectively terminate this condition of trade, and as a process of testing this plan do recommend that each and every provincial and territorial Association in the Dominion of Canada do seek to have all druggists or members in their several territories exclude from their business and cease to sell the Dr. Chase's Remedies from January 1, 1910, unless these remedies be placed on a contract-plan basis that will effectually stop price-cutting and afford the retailer a proper rate of profit on or before October 1, 1909; and that the Commercial Section of the Canadian Pharmaceutical Association be authorised to amend this resolution from time to time as may be required in order to cover any other articles or products demanding recommendation.

#### AMONG THE PAPERS READ

at the Convention was one by Mr. Henry Watters, of Ottawa, on oleic acid, in the course of which he submitted the word "Petroliniments" as a name for a class of preparations of which the following liquid petroliniment is the basis. The principal formulæ\* are as follows:

##### Liquid Petroliniment.

White liquid paraffin	...	...	6 parts
Purified oleic acid	...	...	3 parts
Alcoholic ammonia	...	...	1 part

Mix.

Alcoholic ammonia may be prepared as follows:

Ammonia solution (30 per cent.)	1 part
Alcohol ... .. (90 per cent.)	2 parts

Mix.

##### Iodine Petroliniment.

Iodine resublimed	...	...	5-10 or 20 per cent.
Liquid petroliniment	...	...	q.s. to 100 parts

Rub together in a mortar.

Ichthylol petroliniment can be obtained in the same way, as well as many other combinations of bodies soluble in the vehicle.

Methylsalicylic petroliniment is made by simple admixture of required quantity of methyl salicylate with liquid petroliniment.

Guaiaol and menthol preparations are similarly obtained, as well as combinations of these two chemicals in 10-per-cent. or 20-per-cent. or other stronger mixtures.

These products owe their peculiar character of absorption, and especially freedom from skin-staining, to the ammonia soap formed in the process. A useful preparation of solely commercial interest possessing possibilities of business profit and advantage, and to which Mr. Watters gives the name "Cloudy Ammonia," is prepared as follows:

Powdered borax	...	...	...	1/4 oz.
Water	...	...	...	6 oz.

Dissolve and filter, then add—

Ammonia solution (30 per cent.)	6 oz.
Oleic acid	1/2 oz.

"This combination may be recognised as the chemical solvent of all the forms of organic matter met with." Another useful application of ammonia soap is found in the preparation of cresol solution similar to lysol consisting of—

Cresol, U.S.P.	...	...	...	50 per cent.
Oleic acid	...	...	...	25 per cent.

Mix and add a mixture of 5 per cent. of ammonia solution (30 per cent.) and water to make 25 per cent.

The next meeting of the Association will be held in Halifax about August 1910. The following officers were elected at the closing session:

President: Henry Watters, Ottawa.  
Vice-President: Robert Martin, Regina.  
Secretary-Treasurer: Jno. E. Tremble, Montreal.

\* These are variations of the formulæ published some years ago in Germany for "vasoliment," and reprinted in "Pharmaceutical Formulas," the original formula for the base being oleic acid 50, alcoholic ammonia 25; heat to saponify, then add liquid paraffin 100; heat until solution is effected, and make up to 175 with alcohol (all by weight). A variation has also been inserted in the "British Pharmaceutical Codex" under the name "liquid parogen." The base is supposed to resemble "vasogen."—EDITOR C. & D.

The following are conveners of the various committees composed of members from each province in the Dominion:

Legislation: John Cochrane, Victoria, B.C.  
Canadian Formulary: John Hargreaves, Toronto, Ont.  
Progress of Pharmacy: Joseph H. Emery, Victoria, B.C.  
Pharmaceutical Education: G. E. Gibbard, Toronto, Ont.  
Commercial Interests: G. A. Burbidge, Halifax, N.S.

## American Pharmaceutical Association.

THE fifty-seventh annual meeting of the American Pharmaceutical Association was held at Los Angeles, California, from August 16 to 20. The first sitting of the general session took place on Monday afternoon, August 16, and was opened by Mr. Eugene G. Eberle, Senior Vice-President, in the absence through illness of the President, Professor Oldberg. The Association was formally welcomed by the city authorities and representatives of the State Pharmaceutical Association and various other pharmaceutical and medical bodies. Mr. H. B. Mason, of Detroit, read

#### THE PRESIDENT'S ADDRESS.

This was devoted to "the living questions" of immediate interest to the Association. The pharmacist is necessary to civilisation, and the public welfare demands that the practice of medicine and the practice of pharmacy shall be separate occupations. Many medical practitioners have usurped the functions of the pharmacist and become dispensers as well as prescribers, but there are retail druggists who encroach on the functions of the physician. The two professions must be distinct: any amalgamation would be immoral and liable to lead to dangerous abuses. He condemned the quack-nostrum evil, and asked druggists to decide whether they would become purely commercial dealers or would give up extraneous side-lines and devote their whole time and attention to the practice of pharmacy. The development of real pharmacy and a prescription-business is impossible in the midst of surroundings that stamp it as a ridiculous pretence. The chief cause of the degradation of the retail drug business is the excessive number of drug-stores. The number should be kept within bounds by requiring graduation from a reputable school of pharmacy. The Pharmacopœia could be made more helpful to pharmacists, and the formulas and methods so framed as to encourage and facilitate the making of official preparations by pharmacists. It was a mistake by the Government to make the "National Formulary" an official standard, but this he thought would be corrected sooner or later.



PROFESSOR OLDBERG.

#### COMMERCIAL INTERESTS.

The system of business at the annual meeting of the American Pharmaceutical Association is to apportion the work among the various Sections. The Section on Commercial Interests held its first sitting on August 17, and the Chairman (Mr. H. B. Mason) read an address. The papers in the Section included "The Druggists' Mailing List," "My Best-selling Soda-syrup," "The Preparation and Use of Showcards," "Winning the Farmers' Trade," and "Spices and Flavours." A discussion on increasing the prescription business brought out the opinion that it does not pay to cater for the physician. Honesty in filling prescriptions and methods of inspiring confidence in the public are the main things sought after.

## EDUCATION AND LEGISLATION.

The Section devoted to these subjects met on August 18, when the Chairman (Mr. Joseph W. England, Philadelphia), in an opening address, stated that there are seventy-five schools of pharmacy in the United States—too many by half, he thought—and he proceeded to point out the wonderful growth in their number, there being 14 in 1875, 21 in 1885, 59 in 1895, 67 in 1905, and 75 in 1908. The number of students in the years named was 922, 1,746, 3,859, 4,944, and 5,567 respectively. In 1875 there were 208 graduates in pharmacy; in 1885, 396; in 1895, 1,067; in 1905, 1,518, and in 1908, 1,529. Some of the small schools could be merged with the larger ones, thus increasing the capacity for instruction and the possibilities of thoroughness. To make the calling of pharmacy more attractive it is necessary to cut down the long hours of assistants. There is no real need for a sixteen-hour day: any prescriptions that require filling after the store is closed could be dealt with by either the proprietor or the assistant without the necessity of keeping the shop open. Mr. England said that the responsibility for the dominance of commercial interests in pharmacy rests largely on the medical profession, which has wandered far afield after strange gods in drugless therapeutics. Physicians are not being educated in the therapeutic action of drugs and in prescription writing, the number of prescriptions written has fallen off, and the pharmacist has been compelled to supplement his income by the sale of side lines. Moreover, it is estimated that 50 per cent. of the drugs dispensed in the United States are dispensed by physicians themselves. The number of dispensing physicians is rapidly increasing, which tends still further to limit the income from the legitimate practice of pharmacy.

The report of the Secretary of the Section (Mr. Charles H. La Wall) was read by Mr. F. P. Stroup. This summarised the legislation of the year in the several States. Another report by Dr. Hamilton Wright was on the suppression of the opium traffic. Mr. L. F. Kebler dealt with legislation for controlling drug habits, and Mr. H. B. Mason presented a report on temperance. The last named emphasised the importance to pharmacy of preventing drug stores taking up the liquor business. Papers in this Section were entitled "Modification of the Regulations Governing the Food and Drugs Act," by Mr. G. H. Beringer; "The Spanish Edition of the United States Pharmacopoeia," by Professor J. P. Remington; "The Need of Post graduate Instruction," by Mr. M. I. Wilbert; "The Teaching of Botanical Nomenclature," by Dean Rusby. Other papers were by Professor Albert Schneider, Professor Virgil Coblentz, and Professor C. S. N. Hallberg.

## DRUG MARKETS.

The Scientific Section met on August 19, the first business being a report on the drug market by Mr. Edgar L. Patch. The report opened with the statement that there appears to be constant improvement in the quality of products and in the attitude of the trade on the question of quality, but many things remain to be remedied. Some boards of health and committees on adulteration formerly tabulating the slightest variation from standards as adulterations, so giving a false impression to the public, are adopting the more reasonable course of stating that the products named vary from standard. The committees feel that it is still wise to move slowly in condemning products and discrediting dealers, as there is a lack of uniformity in methods of criticism and men of good reputation express widely divergent opinions. Examples were given of this divergence of opinion. Dr. H. H. Rusby spoke of the character of his work in the Appraiser's office at New York. Despite the clamour of dealers for adulterated drugs or articles below standard, he had succeeded in preventing the importation of goods of this character.—Dr. Lyman F. Kebler told of his work in the same capacity on the Pacific coast, and the remarks of both gentlemen were received with much applause.

## PHARMACY AND DISPENSING.

A somewhat lengthy programme of papers in this Section, which met on August 19, excited little discussion. The most lively interest was evinced in Mr. George M.

Beringer's paper on the fluidglycerates. Mr. Wilbert advocated the use of fluidglycerate of coffee as a convenient, agreeable vehicle for various medicaments, and the suggestion was favourably received. He urged pharmacists to exercise their own grey matter and experiment for themselves as to the best methods of concealing disagreeable flavours and increasing the therapeutic activity of drugs which it is almost impossible to make the patient take unless prepared in agreeable form. He said pharmacists should co-operate with physicians in designing new combinations, and when they discovered something of value to let brother pharmacists have the benefit.—Professor John Uri Lloyd read a paper extolling the debt which science owes to empiricism, and spoke of the gratitude that should be shown to the "rule-of-thumb" men of the past and present who, while not mathematically exact as to rules and science, had yet made it possible for the more exact scientists to accomplish the great works which have contributed to the progress of the human race.—Mr. Otto Raubenheimer, Brooklyn, read a paper on Magma Bismuthi.

## STANDARDS FOR NON-OFFICIAL DRUGS.

Other reports included those of the delegates to the National Wholesale Druggists' Association, the Committee on National and State Legislation, the delegates to the National Association of Retail Druggists, the Committee on Publicity, the General Membership Committee, and the Committee on Standards for Non-official Drugs and Chemical Products. The last-mentioned report outlined a plan for a permanent committee. Among the recommendations was one that the names of proprietary chemical products shall not be listed as titles in the publication of standards, but shall be incorporated as notes at the end of the monographs or as foot-notes; all such names shall, however, be included in the index. Further, only such proprietary chemical products shall be considered as have definite chemical formulae or are definite chemical products, not mixtures, and in case of a patented proprietary product the chemical formula (when feasible), the name of the patentee, and date of the expiration of the patent shall be given. The chemical synonym to be stated in every instance. The report was accompanied by lists of non-official chemicals, crude drugs, and pharmaceutical preparations.

## TREASURER'S REPORT.

The Treasurer (Dr. Whelpley) stated that the Association had had another prosperous year. The rate of increase in membership was greater than ever before and the proportion lost by suspensions smaller. Although expenses have increased the income is sufficient to meet the demand. The net balance on July 1, 1909, exceeds that on July 1, 1903, by \$518.49. The special funds (exclusive of the Procter and Motter Funds) have increased in value \$1,872.83, making a total increase of \$3,391.32 in assets compared with \$4,900.87 increase last year. The grand total of the assets of the Association was stated to be \$39,706.37.

The next President of the A.P.A. is Dr. H. H. Rusby. He was elected under the new system, by which the members record their votes for the officers by post. Dr. Rusby is Dean of the New York College of Pharmacy, which is affiliated with Columbia University.

THE PROHIBITION MOVEMENT, which is spreading over the United States is indirectly affecting pharmacy. The druggists of several States are planning to pass laws restricting their own sale of liquor and making it possible to punish those who abuse their professional privileges by becoming saloon-keepers in disguise. In Massachusetts it is proposed to enact a law prohibiting pharmacists from selling liquor except on physicians' prescriptions, and also prohibiting all such prescriptions from being refilled. The same suggestion has likewise been made in New York. In Georgia the law prohibits the sale of liquors, wines, and "any other substance which may be used for intoxicating purposes." One or two judges in the city of Atlanta ruled that any pharmaceutical or patent medicine containing alcohol is involved in this language of the law, and may, therefore, be sold only on a physician's prescription! The druggists have protested, but so far in vain.



## Trade Report.

**NOTICE TO BUYERS.**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

### 42 Cannon Street, London, E.C., September 2.

**T**HE improved business tone reported during the past fortnight continues in many quarters, and the sentiment is expressed that the autumn will show increased demand should trading develop in the manner expected. Certainly the trend of values, as will be seen from below, is more upwards than downwards, and this is an important factor. Stocks of several leading drug-staples are extremely small, and, should any general revival take place, higher prices may be looked for. Opium is again a feature, the continued consumption and speculative buying at initial sources having driven prices up again, and the spot market is now very bare at the moment. Morphine is very firm at last week's advance, but codeine is so far unaltered. Other articles on a higher plane include hydrastis and, to a less extent, scnega. American peppermint oil in tins is 3*d.* higher, and H.G.H. also shares the improvement. Menthol is again the object of speculation, under the influence of strong Japanese advices from a leading house, and Norwegian cod-liver oil has advanced fully 1*s.* 6*d.* from the lowest quotation. Ergot is firm and scarce, and chamomiles and cantharides are higher. New manna is expected shortly. Bergamot oil is firmly held, but lemon is extremely dull. Castor oil is easier for some descriptions. Quinine is unaltered and in retail demand only. Worked descriptions of cinnamon were higher at auction. The chief alterations are as follows:

Higher	Firmer	Easier
Ammonia sulphate	Chamomiles	Capsicums
Cantharides	Cod-liver oil	Castor oil
Cinnamon (worked)	Ergot	Japan wax
Hydrastis	Lead acetate	Peppermint oil
Opium	(foreign)	
Senega	Peppermint oil	(American)

### Cablegrams.

**SMYRNA, September 1** :—The demand for opium continues, and holders ask from the equivalent of 12*s.* 6*d.* to 13*s.* for Karahissar as to quality. It is difficult to operate, however, as sellers expect price to advance to 14*s.*

**NEW YORK, September 2** :—Business in drugs is fair. Opium is 10*c.* higher at \$4.50 per lb. Hydrastis (golden seal) has advanced a further 10*c.* to \$2.05 per lb. Caracara sagrada is quiet at 8*c.* Podophyllum root is also firm at 8*c.* Peppermint oil is steady at \$1.45 in "tins." Central and South American copaiba is easy at 42*c.*, and jatap is easier at 45*c.* per lb.

### Java Quinine Auction.

At the quinine-auction held at Batavia on September 1, 1,500 kilos. Ed. II. sulphate were offered, of which 1,462 kilos. sold at an average price of 9.80*fl.* per kilo. (= 2.65*c.* Amsterdam unit), against 10.20*fl.* per kilo. at the previous auction.

### Madras Government Cinchona.

A Government Order on the administration report of the Madras Cinchona Department states that the quantity of bark worked up during the year (672,725 lb.) was a little less

than that worked in the two previous years, but the output of quinine was the highest on record, being 25,825 lb., as against 17,267 lb., the average for the previous five years. This high output was the result of the working-up of a large quantity of Java bark, imported from Amsterdam, which gave 5.5 per cent. of quinine sulphate, as against 3.1 per cent. yielded by locally purchased bark, and the same percentage given by estate bark.

### London Markets.

**ACONITE.**—Fifty bags of Spanish have arrived *via* Havre.

**ALOE.**—Only eight cases Mossel Bay have arrived this week, also six cases of skins from Aden.

**ARROWROOT.**—At auction 67 barrels of St. Vincent were bought in at 3*d.*

**ASAETIDA** continues to be inquired for, but only low stony qualities are offered, of which there are over 100 packages in London. The *Griqua*, which arrived last week, brought nothing.

**BALSAM**, Canada, is quoted at 3*s.* 6*d.* per lb. spot, and slightly less for shipment.

**BENZOIN.**—Good Sumatra seconds have changed hands at 7*l.* 10*s.* per cwt. in small lots, and there has been a better demand privately. The arrivals comprise 40 cases Sumatra and 15 of Palembang.

**CANTHARIDES.**—New Russian have advanced about 20 per cent., dealers offering at from 2*s.* 5*d.* to 2*s.* 8*d.* per lb. c.i.f.

**CAPSICUMS.**—Easier at auction, when 115 bags of Nyasaland were sold at from 45*s.* to 49*s.* 6*d.* for fair to good large red.

**CHAMOMILES.**—The new Belgian crop is being received in fairly regular quantities at the moment, and dealers report a fair demand from consumers. For parcels just landing from 77*s.* 6*d.* to 80*s.* per cwt. is quoted ex wharf London, which is a substantial advance on previous prices.

**CHILLIES.**—Quiet. At auction 156 bags of Nyasaland were offered, and 22 sold at 45*s.* for fair bright.

**CINCHONA.**—The *Orita* has brought 190 bales from Molendo.

**CINNAMON.**—Only 230 bales were offered at the quarterly sales held on Monday, August 30. There was a good competition for the medium qualities of worked descriptions, and these sold at a halfpenny to a penny per lb. higher than at the last auctions. The finest and common kinds were in little demand, but the few lots that were sold realised steady prices. Of 230 bales worked, 200 sold at 1*s.* to 1*s.* 4*d.* per lb. for good to superior firsts, at 11½*d.* to 1*s.* 3*d.* for good to fine seconds, at 9*d.* to 1*s.* for fair to fine thirds, and at 7*d.* to 10½*d.* for common to good fourths. Of 59 bales unworked, seven sold at 8*d.* per lb. for hard woody firsts.

**CLOVES.**—At auction five cases of Ceylon were sold at 9½*d.* for good bright. Privately the market for Zanzibar remains quiet, quotations being practically unaltered. For arrival September-November and October-December shipment is quoted at 4½*d.* and January-March at 4¾*d.* c.i.f. d/w. For January-March delivery business has been done at 4½*d.*, being easier.

**COCAINE.**—There is said to be more inquiry for second-hand parcels of hydrochloride, but actual business is difficult to trace. As it is, second-hand stocks are likely to suffice for the limited consumption for the remainder of this year, as the demand has fallen away considerably.

**CODEINE.**—No alteration has yet been announced, the price of crystals being 10*s.* per oz. net, and the phosphato 8*s.* 4*d.* net., with the usual reduction for contracts.

**COPAIBA.**—Qualities which pass the B.P. test offer at 1*s.* 10½*d.* to 1*s.* 11*d.*, and for genuine Maranh 2*s.* 4*d.* is asked.

**COPPER SULPHATE** steady. The quotation for Liverpool brands for September-December delivery is 18*l.* 17*s.* 6*d.* per ton.

**DRAGON'S-BLOOD.**—The *Deucalion* has brought eleven cases from Singapore.

**ERGOT.**—Since last quoted, prices have taken an upward turn owing to scarcity, but the rates now quoted vary somewhat. Russian is offered at from 1*s.* 5*d.* to 1*s.* 6*d.* c.i.f. in ton lots to come forward, the spot price being about 1*s.* 7*d.*, and Spanish 1*s.* 9*d.*

**GAMBIER.**—Small sales of blocky *cubes* have been made at 37s. 6d. per cwt.

**HYDRASTIS** has further advanced, cables quoting 8s. 8d. c.i.f., and on the spot the value is now 8s. 8d. net, supplies being very bare. The "New York Commercial" states that, according to a report from a commission-house in St. Louis, "this year's crop of golden seal is about 50 per cent. of last year's, which was also a light crop, and the few who have any root on hand in the producing sections are asking \$2.00. Should there be any large demand, prices may go considerably higher. A good many sections report the article almost extinct, so that lower prices for the future are not very encouraging."

**IPÊCAUANHA.**—The s.s. *Ionic* from Monte Video has brought 23 bales to London, and 20 packages have arrived in Liverpool from Rio per *Flamenco*, part Matto Grosso and part Minas.

**MACÉ.**—Quiet. At auction nine packages of West Indian were sold at from 1s. 6d. to 1s. 7d. for fair palish, 1s. 4d. to 1s. 5d. for fair red, and at 1s. to 1s. 2d. for pickings. Eight cases of Java and nine cases of Macassar were bought in at 1s. 1d.

**MANNA.**—Prices of new crop are anticipated in about a fortnight. Meanwhile, owing to heavy rains, shippers' pretensions of value are towards higher rates than those now ruling.

**MENTHOL.**—Renewed speculative activity, based on much stronger letter advices from Japan, is a feature. The business done includes Kobayashi from second hands at from 8s. 3d. to 8s. 6d. c.i.f. for August-September shipment, and Suzuki near-at hand at 8s. c.i.f. First-hand quotations continue prohibitive, Suzuki offering for August-September at 8s. 11½d. and oil at 5s. 8d. c.i.f. On the spot business is quite retail, Kobayashi offering at 8s. 6d.

**MORPHINE SALTS.**—These are now quoted in the manufacturers' price-lists for September at an advance of 6d. to 7½d. per oz.

**NUTMEGS.**—West Indian at auction were steady, about 130 packages being sold out of 347 offered.

**OIL, BERGAMOT.**—Still firmly held, from 17s. to 18s. per lb., spot being quoted for finest brands as to quantity.

**OIL, CASTOR,** is easier. Hull make offering at 27l. 5s. per ton in barrels for prompt delivery and 27l. for September-December, delivered free on wharf London; Belgian firsts for prompt is 27l. 10s., ex wharf London. In Liverpool good seconds Calcutta and first-pressing Belgian are quoted 3d. per lb. spot, and the former at 2½d. to 2½d. for July-October shipment.

**OIL, CITRONELLA.**—Ceylon on the spot is quoted 1s. 0½d. for drums and 1s. 1½d. for cases, and for shipment 1s. 1d. c.i.f. London is asked.

**OIL, COD-LIVER.**—Owing to a better demand in Norway, the cheapest sellers have advanced their price to 63s. 6d. c.i.f., and in other directions up to 66s. c.i.f. is quoted, the spot price for good brands being 67s. 6d. Considering the fact that the article practically maintained its price throughout the summer, the inference is that the position will improve with the winter demand. Our Bergen correspondent writes on August 30 that more interest has been displayed in cod-liver oil, and for finest non-congealing quality 66s. per barrel c.i.f. has been refused, holders expecting higher quotations later. The exports from Bergen up to date amount to 9,131 barrels, against 12,863 barrels at the same date of 1908.

**OIL, GERANIUM.**—Values of Bourbon continue cheap, a good brand offering at 9s. 6d. per lb.

**OIL, LEMON.**—The principal inquiry is for forward shipment, but there is not much disposition to operate, good brands offering for delivery over next year at 3s. 3d. c.i.f.; on the spot the demand is extremely slow at about 3s. 5d.

**OIL, PALMAROSA.**—East Indian is very firm and likely to be dearer. Dealers offer at from 5½d. to 5½d. per oz., as to quantity, and these prices have been paid.

**OIL, PENNYROYAL,** is easier, genuine French or Spanish offering at 5s. per lb.

**OIL, PEPPERMINT.**—The position is firmer all round, and as all the cheaper parcels of Wayne County tin oil have now been sold, the lowest price to come forward is 6s. 6d. c.i.f. for good brands. H.G.H. is also firmer, and in five-case lots 8s. 9d., usual terms, is asked. Japanese is quoted 5s. 6d. to 5s. 8d. spot.

**OIL, PETITGRAIN.**—Paraguayan is quoted 9s. per lb.

**OIL, RED THYME.**—This is now being sent from Cyprus in moderate quantities, quality being exceptionally fine, analytical results showing 60 per cent. phenols, as against a yield of 25 per cent. to 30 per cent. from French oils. The value is from 3s. 10l. to 4s. per lb.

**OILS (FIXED).**—*Linseed* is a little easier on the week, closing at 24s. 1½d. in pipes and 24s. 4½d. in barrels. *Ceylon Coconut* is also easier, offering at 34s. 3d. spot and at 37s. for Cochin. Ordinary brown *Rape* is nominal at 25s. 6d., English refined in casks being offered at 27s. 6d. per cwt. *Cotton-seed* is quoted at from 23s. to 23s. 3d. for crude on the spot, at 23s. 9d. for ordinary pale refined, and 26s. 6d. for sweet refined. *Soya bean* is unaltered at 21s. 3d. per cwt., naked, on the spot. *Lagos Palm* oil is offered at 29s. *Petroleum* remains quiet at from 6d. to 6½d. for ordinary refined American, at 7d. to 7½d. for waterwhite, and at 5½d. for Russian. *Turpentine* is practically unaltered on the week, closing at from 40s. 4½d. to 40s. 6d. for American on the spot.

**OLIBANUM.**—Quiet. Good pale drop is quoted 40s. to 45s., fair 35s. to 37s. 6d., middling 27s. 6d. to 30s., ordinary 25s., fair to good garblings 12s. 6d. to 15s., and fair to good siftings 13s. to 15s. per cwt.

**OPUM.**—Much dearer and excited. During the past few days cables from primary sources intimate a very strong and advancing market, quotations from Smyrna and Constantinople showing a rise of from 6d. to 9d., and from Salonica of 1s. per lb. As is the rule on rising markets, a fair business has been done at from 12s. 6d. to 13s. per lb., but to-day a cable has been received from Salonica reporting an excited market, and offering ten cases at 14s. The above advance is based on the general consumptive and speculative demand, and to the fact that it is now more apparent that the crop outturn is round about 5,000 cases, a considerable reduction on original estimates. On the spot the market is extremely bare, it being estimated that, all told, there are not more than fifty cases of Turkey, including soft-shipping. The quotations for druggists are now from 13s. to 13s. 6d., and 15s. for Tokat, which prices have been paid. Persian is also in extremely small supply, and firmly held both at primary sources and on the spot, there being practically no sellers at the moment. Cabled bids of 12s. have been refused for 11 per cent., holders anticipating an advance, and on the spot, in the absence of sellers, prices are nominal at 13s. 6d. to 14s.

Writing on August 20 a Smyrna correspondent reports a very firm market with sales of 130 cases, 23 of which were on speculative account and the balance for consumers. Prices commenced at 10s. 6d. to 11s. 3d. as to quality, and ended at 11s. 4d. to 11s. 9d. For very rich Yerli buyers would have to pay from 12s. to 13s. The general opinion is that our crop will not exceed 5,500 cases, and judging from the shortage of the arrivals as compared with those of last year we are inclined to share in this opinion. Constantinople and Interior speculators are buying largely. The arrivals to date amount to 1,048 cases, against 1,265 last year. Another correspondent, writing on August 21, states that the demand has by no means abated, speculators and consumers having continually supported the market at advancing prices. The sales comprise 91 cases extra Karahissar t.q. at from the equivalent of 11s. 3d. to 11s. 7d. per lb. c.i.f., and 34 cases "primo" Karahissar at from 10s. 6d. to 11s. Market closed very firm with buyers and no sellers at the last prices quoted, all the more so as orders have not been entirely executed.

Writing again on August 27, a Smyrna correspondent reports a very active week, sales amounting to 110 cases, as follows, comprising 12 cases for account of interior speculators, 92 cases for America, 4 cases for England, and 2 cases for France and Italy. Prices opened at 11s. to 12s. as to quality, and closed very firm at 11s. 6d. to 12s. 6d., with buyers and only a few weak sellers. It is believed that the Americans have orders for over 200 cases, but, as above stated, only 92 have been secured, and if each time the higher pretensions of sellers are responded to, we may see the market run up to 14s. and 15s. within the next fortnight. The crop is reduced now to only 5,000 cases, which is about 2,000



less than what we expected at the beginning of the season. The reason of this shortage is dry hot weather during July and early this month. The arrivals to date amount to 1,144 cases, against 1,373 at same date last year.

**PEPPER (BLACK).**—At auction 19 bags of Ceylon were offered, and sold at  $3\frac{1}{2}d.$  for good small. Privately the market for Singapore is quiet, with sellers of fair at  $3\frac{1}{2}d.$  For arrival the sales include 100 tons for October-December shipment at  $3\frac{1}{2}d.$ , September-November shipment at  $3\frac{3}{4}d.$ , and January-March at  $3\frac{1}{2}d.$  c.i.f. d/w.

**PEPPER (WHITE).**—At auction no supplies were offered. Privately the market continues slow, with fair Singapore offering at  $5\frac{1}{2}d.$  spot. For arrival the business includes near-at-hand at  $4\frac{1}{2}d.$ , and October-December at from  $4\frac{3}{4}d.$  to  $4\frac{1}{2}d.$  c.i.f. d/w.

**PIMENTO.**—At auction nothing was offered. Privately fair quality is quoted at  $2\frac{1}{2}d.$  on the spot.

**QUICKSILVER** is steady at  $8l.$  5s. from importers and  $8l.$  1s. to  $8l.$  1s. 6d. from second-hands.

**QUILLAIA.**—The arrivals in Liverpool comprise two consignments of 255 bales and 787 bales from Valparaiso and 36 bales from Talcahuano.

**QUININE** continues in retail demand only at unaltered rates, the 5 per cent. decline in the Amsterdam bark unit last week not having affected the market in any way. The usual brands of German sulphate from second-hands are quoted  $6\frac{3}{4}d.$  to  $7d.$ , Amsterdam at  $6\frac{1}{2}d.$ , and Java  $6\frac{3}{4}d.$  A direct shipment of 188 cases Java (75,200 oz.) from Batavia to London, has arrived this week, having been bought by various purchasers for arrival.

**RHUBARB.**—The arrivals comprise thirty-four cases from Hamburg and sixteen from Marseilles.

**SANTONIN.**—With the issue of the September price-lists, two important dealers have marked up the price from 12s. to 15s. 6d. per lb.

**SARSAPARILLA.**—The arrivals comprise 15 bales Native-Jamaica and two consignments of 24 and 28 bales grey-Jamaica, which will be offered next week.

**SENEGA.**—Dearer. From the United States a cable to hand to-day states "no offers"; and in another direction a cable has been received quoting 1s.  $11\frac{1}{2}d.$  c.i.f. London. Small spot sales have been made up to 1s.  $10\frac{1}{2}d.$  net, and it is doubtful if there are now sellers at this figure, the opinion being expressed that the spot price will presently be 2s.

**SENNA.**—The *Clan Macaulay* has brought 525 bales from Tuticorin, which will be offered next week.

**SHELLAC** is firm with moderate spot sales on the basis of 74s. for fair free TN Orange, and for arrival September-October has been sold at 71s., and November-December shipment of TN at 73s. c.i.f. Futures are firm, with sales of October at 75s., December at 75s. to 76s., and March at 77s. to 79s.

**SOY** is steady at from 1s. 2d. to 1s.  $2\frac{1}{2}d.$  per gal., according to quality.

**TURNERIC.**—Madras finger is slow at from 16s. 6d. to 18s. 6d., and Bengal at 19s. Split Cochin bulbs are quoted 13s. 6d. spot.

**WAX, JAPAN,** is cheaper at 45s. spot for good squares.

### Heavy Chemicals.

Trade in the heavy-chemical market continues on the quiet side, export business being slow. Inquiries, however, on both prompt and forward account are better and the market maintains a steady tone.

**SULPHATE OF AMMONIA.**—With a fair demand continuing the improving tone referred to last week has been more than maintained and slight advances all round are to be recorded. Present figures: Beckton prompt, 11l. 7s. 6d.; Beckton terms, 11l. 1s. 3d. to 11l. 2s. 6d.; London 11l. 1s. 3d. to 11l. 2s. 6d.; Leith, 11l. 7s. 6d.; Liverpool, 11l. 3s. 9d. to 11l. 5s.; and Hull, 11l. 1s. 3d. to 11l. 2s. 6d. For delivery up to the end of the year buyers' ideas are about 2s. 6d. over present figures. For next year's delivery makers' ideas are about 11l. 10s. to 11l. 12s. 6d. f.o.b.

**BICHROMATES OF POTASH AND SODA** are somewhat disappointing as regards demand and rule quiet at unchanged rates. Bichromate of potash, English and Scotch deliveries,  $3\frac{1}{2}d.$  per lb., less 5 per cent., and export,  $3\frac{1}{2}d.$  per lb. net f.o.b. Glasgow. Bichromate of soda, English and Scotch deliveries,  $3d.$  per lb., less 5 per cent., and export  $2\frac{3}{4}d.$  per lb. net f.o.b. Glasgow.

**ZINC SALTS** are moving rather better and are well maintained. Zinc sulphate crystals, 6l. 15s. to 7l. per ton, and zinc chloride solution 100° Tw. 6l. to 6l. 5s. per ton.

**MAGNESIUM SALTS** are in very fair request, both on home and export account, at unchanged rates. Sulphate, 62s. 6d. to 65s. per ton; chloride, 67s. to 70s. per ton; and carbonate 30s. to 35s. per cwt.

**SULPHOCYANIDES** continue on the quiet side. Potassium, 7d. per lb.; ammonium, 95 per cent., 7d. per lb.; and barium, 95 per cent.,  $3\frac{1}{2}d.$  per lb.

### Manchester Chemical-market.

August 31.

The continuance of the holidays in Lancashire causes a quiet feeling to rule in heavy chemicals. On foreign account, favourable reports continue to be received, although in this department there is little change to note in prices. There is a quiet demand for sulphate of copper, which is about 18l. 12s. 6d. to 18l. 15s. per ton, delivered Manchester, prompt. For delivery early in the year 7s. 6d. to 10s. per ton more is asked. Foreign white sugar of lead has advanced rather sharply. There is little inquiry for white powdered arsenic, which remains more or less nominal in price. In tartaric acid a fair business is reported forward, and the market is steady with firmer tendency. Coal-tar products are quiet, although there is a better inquiry for sulphate of ammonia and benzols. Carbolic acid is dull. On the whole, however, a more hopeful feeling is reported generally in business for delivery over the next twelve months.

### American Drug-market.

New York, August 24.

While business in drugs continues of only moderate proportions, a fair improvement in trading conditions is noticeable, and a greatly increased demand for all lines is generally expected to develop during the early fall months. Price changes have been few. Opium is irregular.

**ALOES.**—Curaçao in cases has remained steady at former prices of 6½c. to 7c., with a good business in progress. Gourds and Capo are rather quiet.

**ASAETIDA** of U.S.P. quality continues in good demand, and the limited stocks are firmly held at 55c.

**CAMPHOR.**—Domestic refined is lower and easy at 46c. for bulk in barrels and 47c. for cubes.

**CANADA BALSAM** is in quiet demand, but steady at \$6.25 for barrel lots and \$6.35 for cans. Spot supplies are rather low, and the northern gathering districts report light yields.

**CASCARA SAGRADA** is in rather quiet demand at the former prices of 8c. to 9c. Reports from primary sources continue of a conflicting nature as regards both crop yield and market control. Holders there are not urging sales meantime, and since local dealers are not anxious to buy, the tone of the market is dull all along the line.

**COPAIBA.**—All varieties of C. and S. American are moving freely, and, with the supply equal to the demand, prices are somewhat easy at 42c. to 47c. for guaranteed goods. Pará is quoted at 50c. to 55c., with easier terms available for some grades.

**DAMIANA-LEAVES** of the medicinal varieties are reported scarce at initial sources, and spot prices are accordingly firm at 10c. for the small lots in demand nowadays.

**HYDRASTIS** is in active demand, and firm at the higher range of \$1.90 to \$2.00. Since the price of this drug approached the present level its use has been discarded by large manufacturers of proprietary medicines in favour of cheaper substitutes, and the demand from these quarters has fallen to a very low ebb. Prices, however, have risen steadily owing to the increasing difficulty in finding enough to supply the current demand, and at present, with the spring-dug all absorbed, nothing is available below the quoted figures.

**JALAP** continues in firm position at 45c., although demand has eased somewhat.

**MANDRAKE** is in steady request on the part of podophyllin-manufacturers, and there is much complaint regarding the quality of the offerings from country markets. Jobbing lots are available at 8c. to 9c.

**OPIMUM.**—The principal dealers have marked up the case price to \$4.20. The advance was influenced by the passing of the Tariff Bill and the firm trend of foreign markets, but the higher price is regarded as merely nominal, since neither of these factors is of much weight—the former having been discounted in advance, and the latter not supported by later crop news.

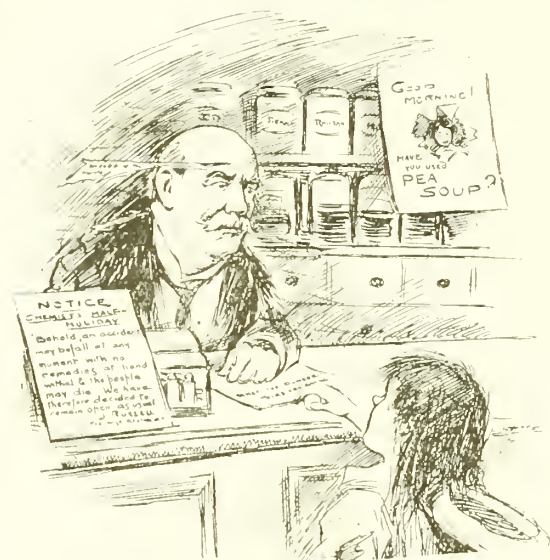
**PEPPERMINT OIL (AMERICAN)** remains steady at the former price of \$1.45 for tins. Details concerning the progress of the harvest are rather meagre, but, owing to the controlling weight of reserve stock, it is very unlikely that the yield will differ from that anticipated sufficiently to affect prices more than a few cents either way.

**SENEGA** is dull and in easier tendency at 40c. for Western.

**SPEARMINT OIL.**—The market is over-supplied, and, owing to the approach of new crop, prices are merely nominal at \$1.75.

## Cartooned Chemists.

THE first of these cartoons is much reduced from a double-page picture in the "City Echo," which is Dundee's Charivari. The victim is Mr. James Russell, pharmacist,



Nethergate, Dundee, who is editor and proprietor of the "Wizard of the North," an illustrated monthly of humour and local news. The "Echo" calls Mr. Russell "The Indispensable Dispenser; or, the Wise and Cunning Wizard," and his little customer asks for "A penny sma' teeth comb."

The second cartoon is from the "Birkdale and Southport



Pioneer," where, to the extent of 10 in. by 5 in., it occupied the centre of a page, and was surrounded by notes on the life of the subject — Councillor Charles Hare, pharmacist, 14 Liverpool Road, Birkdale. Mr. Hare served his apprenticeship, we learn, with his uncle, Mr. W. Foggett, J.P., F.L.S., Thirsk. He studied for the Minor in Edinburgh, and passed that examination in April 1899, then went to Southport as an assistant to his cousin, Alderman J. B. Foggett, J.P. Nine years ago he took over the business of the late Mr. Benjamin Wyles, chemist, Liverpool Road, and has built up one of the largest wholesale and retail businesses in

the North of England. He is also a F.S.M.C., and sits on the local Council as member for the North Ward.

A BRITISH SYNDICATE has obtained from the Bolivian Government the monopoly, for a period of twenty years, of the manufacture of wax and wooden matches.



**TO CORRESPONDENTS.**—A letter for publication should always be a distinct communication; nothing else should be mixed up with it. Each query—no matter whether legal, dispensing, or general—should stand by itself, and the paper upon which it is written should always be backed with the shop stamp. We do not undertake to reply to queries by post. Write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with them. Letters received after Wednesday morning cannot as a rule be dealt with in the current week's issue.

**BUSINESS INFORMATION.**—We supply by post (when a stamped and addressed envelope is provided) information as to the makers or agents for articles connected with pharmacy and the chemical and drug trades. Inquiries regarding any articles which cannot be traced are inserted under "Information Wanted."

### What is Sweet Oil?

We have received a large number of replies to last week's query, and deal with them in a separate article in this issue.

### Podophyllum Emodi.

SIR,—The renewed interest in the above drug evoked by the publication of the report of the Indian Indigenous Drug Committee, together with your editorial review and Mr. John C. Umney's letter, should not be allowed to subside without some definite physiological investigation. In common with most pharmacists, I suppose, I have maintained the opinion that the resin from the Indian drug is not so powerful a purgative or its action so constant as ordinary podophyllin from the American rhizome. For that reason I have rejected several offers of resin from *P. Emodi*, although the price has been advantageous. Some years ago I drew attention ("Year-book of Pharmacy," 1898, p. 181) to the fact that manufacturers were supplying the product of *P. Emodi* under the title of "*Podophylli Resina, B.P.*," and published a test which distinguished the two resins, and which has been adopted by the "British Pharmaceutical Codex." It is only fair to state that this equivocal practice on the part of manufacturers immediately ceased, but I have more than a suspicion that the resin from the Indian drug has been used in the manufacture of pills, etc., especially of a proprietary nature. Mr. Umney has produced strong evidence in support of his view, but as the subject is again under discussion it is only fair to the product of our Indian empire, particularly as the price of the American rhizome is again advancing, that a definite inquiry should be instituted as to their relative therapeutical value.

Yours faithfully,

E. J. MILLARD.

35-42, Charlotte Street, E.C., August 31.

### Does Belladonna Ease the Gripping of Cathartics.

SIR,—At the Belfast meeting of the British Medical Association Professor Dixon expressed a grave doubt whether belladonna has any action in relieving gripping; in fact, he looked on the statement as a pharmaceutical fallacy. He explained that he had tried the experiment himself, taking pills which contained compound colocynth pill with belladonna, and taking the same without belladonna. He had been unable to find any difference in action, although the pills were so made that he did not know at the time of taking which contained belladonna and which did not. It might seem frivolous if I suggested that you should institute a postcard competition, giving prizes as to the results obtained by your readers on taking a five-grain colocynth pill, with and without a quarter-grain of extract of belladonna; but I do suggest that pharmacists might try the experiment and report results. For half a century or more we have devoutly believed and thought that belladonna, or hyoscyamus, as in Christison's modification of colocynth pill, eases the gripping action. Now we are told by a distinguished pharmacologist that the whole thing is a delusion, although millions



of pills have been made to contain hyoseyamus, or belladonna. As Dr. Dixon's view is largely based on a personal experiment, I suggest that pharmacists might also try one.

Yours truly,

Dublin, August 29.

J. C. McWALTER.

#### Sandalwood-oil Capsules.

SIR,—It is advisable that the attention of the retail trade be called to the practice of selling capsules of sandalwood oil stated to contain so many "drops" of the oil per capsule. Chemists may be led to suppose that this quantity is the same as so many minims, but investigation shows that it is not the case. Having recently been called upon to compete in price against capsules containing ten "drops" with capsules containing ten "minims," it was found that those containing ten "drops" contained only 5.7 grains of the oil. On the retailer complaining to the manufacturers, they pointed out that the capsules were supposed to contain ten "drops," which by their method of manufacture was equal to 5.25 minims. From experiments conducted in the laboratory of Messrs. Wright, Layman & Umney, Ltd., it is found that ten drops of sandalwood oil may be made to weigh anything up to one gram. For example :

10 drops from the point of a glass rod weighed 0.080 gram.

10 drops from the open end of 0.5 c.c. glass tube weighed 0.493 gram.

10 drops from an ordinary 25-c.c. burette weighed 0.278 gram.

Even with the same aperture the weight may be made to vary by different rates of delivery. Chemists, therefore, should, for their own protection, insist upon the use of the word "minim," which is a standard quantity, and refuse to receive capsules stated to contain so many "drops," the ambiguity of which word may make its use amount almost to fraud.

Yours truly,

SIDNEY W. BUNKER.

#### Fight No. 2.

SIR,—There were, in all, three battles which pharmacy was bound to fight before anything like a just or even reasonable position was reached. The first was the fight against stores, the second the fight against quackery, the third the fight in favour of pharmacy for the pharmacist. In the case of the first we have, I believe, made as good a settlement as is possible at this late date; the second fight has just begun in the House of Commons; and the "cannon's opening roar" was heard in regard to the third at the British Pharmaceutical Conference this year. I shall not here say anything further of the third fight than this: that when it comes on pharmacists will not draw the line at prescription-dispensing. The whole question of the Army, Navy, public institutions of all kinds, and compounding in shops other than registered shops is bound to come up. Meantime we must concentrate our energies on the fight against quackery, which is made urgent by the movement in Parliament, and which also appears to me to come next in importance to the stores question. We have suffered enough at the hands of quacks in all conscience, but we must not on that account enter the fight with a wild rush like so many mad people. The whole position needs to be studied with calmness and care, as hitting out at large might just as easily damage the legitimate pharmacist as the ignorant quack. There can be no doubt that modern quackery was brought about by the famous House of Lords' decision in 1880. When they made stores possible in pharmacy they gave quackery its opportunity. Those of us who remember pharmacy before 1880 are able to verify this from experience. It comes about in this way that Parliament has to take steps to set right a judicial mistake which it has never really recognised to be a mistake. I see some of the London papers are giving "Tono Bungay" the credit for bringing on the fight, but we must not forget that Mr. Labouchere has been dealing with the whole question for years, and his evidence will be more valuable than that of any other man when the time arrives. The duty which comes first to our hand is the formation of opinion among pharmacists, and with that end in view I would submit the following suggestions:

First, that the time has come when qualified pharmacists ought to be freed from the tyranny of the medicine-stamp. Pharmacy has been as hard hit by the Government as the public, and as it is not one of the wealthy

professions, I think it unworthy of the British Government to continue to wring stamp-money out of pharmacists for the exercise of their calling, and this is what it amounts to. I would allow a pharmacist to sell any preparation of his own up to the number of, say, 1,000 a year stamp free. In order to check the 1,000 a year number, the Government could sell tickets of exemption at, say, 1s. a thousand. This idea would obviously have to be further elaborated, but it is quite capable of elaboration.

Second, I would make it compulsory on all people who put up private preparations, whether pharmacists or not, to have the full formula printed distinctly on the package. This would do more to drive pharmacy into the hands of the pharmacist than anything else, and it would also go far to safeguard the public against pure swindling on the part of quacks.

Third, as it is in the public interest that qualified men exist, I would make a licence of, say, 20l. and upwards compulsory on all people who put up proprietary medicines not being qualified, and I would relieve the qualified pharmacist of the stamped-medicine licence altogether.

Some will smile at this, I know, but when they come to think it out they will recognise the justice of it. Why should we be penalised in the exercise of a calling, for which we have qualified according to law, simply because some who have not so qualified persist in coming over the fence? The multitude of quacks who advertise asking the people to communicate with them direct, when they swindle their dupes to the extent of 5l., or 10l., or even 20l., hardly come within the scope of our calling. Mr. Labouchere has been most persistent in his laudable efforts to expose them, and I really think that where convicted they ought to get imprisonment without the option of a fine. One case came under my notice in which a quack of this kind wrote to a lady offering an appliance for 10l. Receiving no reply, he wrote reducing the price to 5l., as she might be poor. As no reply yet came he wrote again, a canting religious kind of letter, offering his appliance for 2l. 10s., and finally his letters turned threatening in tone. It was then that they were shown to me, and I at once advised placing them in the hands of the police. This man ought certainly to have been imprisoned. He is of the type which preys on the misfortunes and calamities of those who are sick or invalided, from whatever cause. It is a heartless and petty type of rascality.

In short, it appears to me to be our duty to impress on the Government the difference between a qualified pharmacist and an unqualified quack, and the injustice of treating qualified men, who exercise their calling according to knowledge, exactly as men are treated, and ought to be treated, who exercise a calling, which was never theirs, according to their ignorance. We have put up with all this at the hands of the Government too long, but the time has now come to fight. It will not do for the opposition to argue that we have partaken of the nature of the unqualified. It is too true that under persistent ill-treatment pharmacy has become in a measure degenerate; but we are still qualified men, and given fair treatment we are still capable of rising to that professional dignity which is necessary in pharmacy if it is to be of any service to the people.

JAMES REID.

Dumfries, August 30.

#### Suppositions and Realisations.

SIR,—Last April, as you are aware, the new Act for the supposed benefit of the chemist came into force. I should like to let you know how it has affected me, and, maybe, many others like me. In the first place, it put such a premium upon qualified assistants that all the drunken thieves of qualified men were able to get work simply through having a certificate, displacing hundreds of steady, honest men, who were far more capable of managing than the scum that took their places. In the second place the new Act has put a premium upon artfulness and trickery, instead of honesty. The man who can dodge the law now has an enormous advantage over the man who runs straight. I know of a case where the certificate of a qualified man hangs in a shop, but the man is never there. There may be hundreds of cases like that. In the third place, instead of shutting up unqualified shops, they thrive under the new Act. There are close to me no fewer than five so-called drug-stores, and another one now opening, who practically run chemists' shops with no qualification whatever; they may not always sell poisons when asked for—they use their dis-

cretion—but in the eyes of the public there is very little difference between them and the chemist, and they take the chemist's trade. This is how I find the new Act affects me; and although I have received every courtesy and aid the Pharmaceutical Society can give me, yet they are helpless to stop this state of affairs.

W. B. (150/57.)

#### The Volumetric Estimation of Ammonium Phosphate.

SIR,—The *C. & D.* of August 28 contained a paper under the above heading by Mr. John M. Wilkie. In that paper Mr. Wilkie gave two volumetric processes for the estimation of this salt—one a modification of his own process for the mono-alkali and di-alkali phosphates ("J.S.C.I.," 1909, 68), the other a method depending upon the conversion of ammonium phosphate to the sodium salt by boiling with sodium-hydroxide solution and the titration of the excess of soda and of the sodium phosphate formed with standard sulphuric acid. In this latter process Mr. Wilkie uses 30 c.c. of normal sodium hydroxide and titrates back with normal sulphuric acid. He does not give very precise instructions, as he evidently considers it quite inferior to his own estimation, which he describes at some length; in fact, he only advocates its use where standard barium-hydroxide solution is not available, and where accuracy must be sacrificed to speed. From figures quoted in the paper it would seem that Mr. Wilkie could not obtain satisfactory results, as there is a difference of 0.5 per cent. between the figures got from this method and those from the ammonium-magnesium-phosphate method and from Mr. Wilkie's own. That good results are obtainable, however, may be seen on referring to my own paper in the "Pharmaceutical Journal" of July 17, where I described in detail the process that Mr. Wilkie condemns. In this estimation 40 c.c. of decinormal sodium hydroxide was used in the first instance, and decinormal sulphuric acid employed to titrate back, the only difference, therefore, being the use of decinormal in place of normal solutions, and consequently the taking of less salt in the first place. The details of the process are as follows:

Ammonium phosphate 0.2 gram is dissolved in 20 c.c. of distilled water in a beaker flask, and then 40 c.c. of decinormal sodium hydroxide is run in. The contents of the flask are boiled until all the ammonia is expelled, or until only about 10 c.c. remains. It is then cooled and diluted. Three drops of neutral methyl orange are added and decinormal sulphuric acid run in until a permanent pink coloration is obtained. The reading is subtracted from 40 and this difference multiplied by 0.009732, which gives the weight of  $\text{H}_3\text{PO}_4$  in the original weight of  $(\text{NH}_4)_2\text{HPO}_4$  taken.

The figures given below will show how closely the results obtained by the above process agree with those obtained by precipitating as ammonium magnesium phosphate, filtering, drying, and igniting. The moisture was determined indirectly by heating the sample to constant weight in a steam-oven for twelve days. The loss of ammonia was then ascertained (by determinations before and after drying), and thus, the total loss being known and the loss other than moisture being estimated, the difference between these two values gives the moisture.

Results Obtained.				Per Cent.
$\text{H}_3\text{PO}_4$ (volumetrically)	...	...	...	77.34
$\text{NH}_3$	...	...	...	17.31
Moisture	...	...	...	5.25
				99.90
$\text{H}_3\text{PO}_4$ (gravimetrically)	...	...	...	77.30
$\text{NH}_3$	...	...	...	17.31
Moisture	...	...	...	5.25
				99.86

The difference between the volumetric and gravimetric figures is only 0.04 per cent. This compares very favourably with the 0.5 per cent. difference obtained in Mr. Wilkie's experiments. In fact, no difficulty at all has been experienced in obtaining concordant results, as the following figures obtained from another sample show:

77.23, 77.28, 77.29, 77.26 per cent.  $\text{H}_3\text{PO}_4$ .

With regard to the sharpness of the end-reaction, some slight difficulty was experienced at first, but after a few

trials a very fair degree of accuracy can be obtained. In Mr. Wilkie's titration the same difficulty was experienced owing to the presence of a precipitate which, it was found, would not settle readily in a moment or two. The above will show, however, that the estimation is of much greater value and deserves more consideration than is apparent from reading the short account of it in Mr. Wilkie's paper, and in any case something better than a "fair approximation" can be obtained.

Yours faithfully,

48 Southwark Street, S.E.

P. B. DALLIMORE.

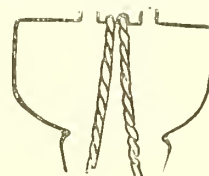
#### Stock-taking.

SIR,—I gladly reply to "Wright Tack." Cut it short is the only way for human endurance; leave hair-splitting to others. Quarterly stocktaking is only possible and necessary for big concerns like Boots, Ltd., who employ a staff to do it and another staff to carry it out. No need to imitate them: they must be exact, because 5% over-estimated at each of 400 shops equals 2,000%. We score there, for the ordinary chemist can be quite indifferent to a fiver: get as near as that, and you will do. Remember even valuations for sale are nearly all estimation—very intelligent and accurate, I agree, but still largely estimation because the weights of the containers of liquids and solids are unknown. "Patents" only want counting up. Sundries are mostly the same: small sundries—1d., 2d., or 3d. lines—lump down roughly at 8d., 1s. 4d., and 2s. a dozen respectively; 1d. lines, own packing, 3d. or 4d. a dozen. Use a penny pass-book for oddments, empties, and returns. Take totals only. In drugs begin with big things—cellar, warehouse, back shop, then drugs in wall-bottles. Take half a dozen fairly representative and find the average; generally 1s. per bottle. Do the dispensing-counter in the same way, about 9d. per bottle. Poison-cupboard, about 6d. per bottle. Run them all in. Boys can count up bottles, boxes, chips, and such-like. It is absolute waste of time to carry them all out. I have tried it, and have even had a valuer to value, and I have, on going through his result, found that my own rough estimate was near enough. It is an education in itself to get it done and carried out, and here you must have a shop retail and cost list. You will improve on each occasion. Try your own way if you think mine is rough; but remember I carry out mine on sheets. Heaps of men who argue take stock and never yet have carried it out; such hair-splitting is merely mental gymnastics and is no use to me.

JAY MACK.

#### Improved Stoppers.

SIR,—Mr. F. J. Miller's suggestion *re* stoppers indented for string is an excellent suggestion, and should be an easy



matter to carry out. I have occasionally seen stoppers with two ridges on the top for the purpose.

W. BOUSFIELD. (27/90.)

#### Travellers' Calls.

SIR,—Your correspondent "Suburban Chemist" says he has "at least four travellers calling every week between 1 and 2 p.m."; what is easier than to say it is his dinner-hour? But he also says that "out of London . . . representatives of quite small houses never call between 12.30 and 2.30, and never after 4 p.m. or earlier than 10 a.m." I wish I represented a "small" house and could earn my living by working four hours a day! I think that if the first statement is as inaccurate as the second, it is not necessary to attach any importance to it; and I do not hear of travellers who desire to prevent their chemist customers from taking their "mid-day meal in peace." This is a matter which, like the much-discussed "How to Treat Travellers," need not be discussed at all if customers could realise that travellers could tell a very different tale—if they might.

Yours faithfully,

TRAVELLER. (148/53.)



SIR,—I have great sympathy with chemists who are disturbed at their meals by customers, and especially by a commercial traveller; but I notice "Suburban Chemist" says he has four travellers calling upon him every week between 1 and 2 P.M. I am pleased to see he is a good-natured man, and does not like to be abrupt with them, as they are a hard-worked class of men, and have to put up with a lot of knocks on the road. I think "Suburban Chemist" is himself to blame, because he says he has been in business over ten years, and yet after all that time he has never told a traveller that he dines between the hours of 1 and 2 P.M. I feel sure if he told a traveller this he would call at a time more convenient for him, as they are always delighted to oblige a customer. Again, I notice "Suburban Chemist" says that travellers do not call before 10 A.M., or between 12.30 and 2.30, or after 4 o'clock, in the North. I can see our friend has very little experience of the North, because the traveller calls from 8.30 A.M., but not often after 5 P.M., and you get a number of them in the dinner-hour. Chemists in the North who live at their shops only take about half an hour for their mid-day meal, and they enjoy a chat after that with the commercial, especially if he is one of the favoured few. Chemists in the North cannot do with travellers after 5 P.M. (especially if they have sample-cases), as they think they ought to be busy after that hour. If only "Suburban Chemist" will tell the commercials calling upon him next week not to call between 1 and 2 he will be able to have his meals in comfort, and will not require a dose of mist. bism. co. afterwards.

Yours faithfully,

Leeds, August 28.

A. H. JONES.

### Legal Queries.

Before submitting questions for reply in this section please refer to the "C. & D. Diary, 1909" for the following subjects: Income-tax, p. 220; Pharmacy Law and Poisons, p. 216, (abroad) p. 211; Spirit Laws, p. 229; Stamped Medicines, p. 221; Trade-marks, p. 194; Wines, Sale of, p. 231; and Legal matters generally, p. 233.

*Canis* (150/14).—(1) Dog-medicines, like other veterinary medicines, are not liable to medicine stamp-duty unless by some stroke of perversity they are recommended for human ailments. (2) Anybody may say that "Teeth are carefully extracted" by them without infringing the Dentists Act.

*Sonam* (149/15).—The Revenue authorities are not accustomed to require payment of medicine stamp-duty in respect to medicated wines which are sold as wines by wine-licence holders, so that in the case of quinine-and-dandelion wine, its recommendation for ailments does not necessitate stamping.

*Nottingham Lamb* (151/31).—Section 4 of the Poisons and Pharmacy Act does not prevent the employment by limited companies of inspectors, and there is nothing in the section to prevent an inspector acting under the superintendent in the control and management of the keeping, retailing, and dispensing of poisons.

*H. E. B.* (149/51).—(1) The father of the boy is responsible for any damage he may have done by trespass and wanton conduct. The amount of the damage may be recovered by civil action in the county court, if it is of the amount of a small debt. (2) Any two or more individuals may form a private limited company to trade as drug-store keepers or chemists and druggists, but it is necessary, if the title of "Chemist and Druggist" is assumed, that a duly registered chemist and druggist should be employed as superintendent of the company, in accordance with Section 4 of the Poisons and Pharmacy Act. The other provisions of that section must also be observed.

*Justice* (150/44).—Your best course in the matter of the order appears to be to allow the claim to go into the county court and have it defended by a solicitor, who would put forward your statement, corroborated by a witness, that the price quoted was inclusive of the work expended on the design and the blocks for its reproduction. It is not possible for us to express an opinion as to whether the charge is reasonable or not, as you do not state how many of the cards were ordered. We have seen much higher quotations for a design of the size, apart from the blocks, and it is not unusual for special designs of this nature to be charged separately from the printing. If the evidence produced in the county court is not decisive in regard to the actual terms of the order, the Judge would no doubt require evidence as to the custom of the trade, and he would also consider the quality of the workmanship in your case.

### Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months. A preliminary condition for reporting on samples submitted is that all particulars as to source and uses are given to us.

*HEADACHE-POWDER*.—In the reply to *Bert* (144/32), on p. 389, for "three dozen" in the fifth line from top read "three doses."

*M. M.* (139/48) inquires for *GOLD BARK*, used for giving a golden colour to leather. Can any reader tell what is meant?

*G. W. W.* (Toronto).—Your card reaches us ten days after the result of the competition has been announced.

*B. D.* (26/7).—*DISINFECTING-FLUID* which becomes milky on mixing with water.—The two methods given on p. 402 of "Pharmaceutical Formulas," ed. VII., are employed by many chemists who make on a small scale. The following recipe is suited for manufacturing a cheap type of disinfecting-fluid on a large scale:

Dissolve 4 lb. caustic soda in 2½ gals. water, then add 18 lb. powdered resin, boiling and stirring until saponified. Then add 2½ lb. creosote and 1½ gal. rosin spirit, maintain the heat for a short time, stirring the mixture vigorously. Lastly stir in 1½ gal. rosin spirit, cover over, and allow to cool.

The creosote referred to is a coal-tar distillate.

*Last Post* (150/36).—You should bind the numbers of the *C. & D.* into volumes. If you did, you would by reference save yourself a great deal of money and time which are at present spent in putting questions to us.

*West Indian* (150/23).—*FACTORY INSPECTORSHIPS* are appointments made by the Home Office, and you can get information in respect to them by application to the Permanent Secretary, Whitehall, London, S.W. The qualification of pharmacist is not of special service in such appointments.

*Moth* (145/7).—*MOTHS IN A BEDROOM*.—Our correspondent has great trouble with moths in one of his bedrooms, particularly in a recess wardrobe cupboard, and he has tried most remedies, but the insects come back, apparently, year by year. The remedies he has used are moth-powders and naphthalene, which keep away moths, but do not in the least affect the pupæ. The best plan is to clear out the cupboard, remove the clothes to the open air, and brush them thoroughly, so that no moth eggs are left in them. The cupboard itself should be sprayed all over with benzoline, which penetrates the waxy surface of the eggs and kills them. The cupboard should then be closed for a day, and thereafter well brushed out.

*A. C. M.* (144/30).—*THYROID PREPARATION FOR GYNÆCOLOGIST*.—Glycerin is not essential in the preparation of a solution of the active principles of thyroid gland. A very active preparation can be obtained by treating the glands with sterile water. Glycerin, being both a solvent and a preservative, is in favour in the preparation of solutions which are required to be kept a little time. There is some reason to believe that such solutions deteriorate in activity as time goes on, even although they keep in the conventional sense of the term. For the intrauterine treatment you mention the dosage is less frequent than when the solution is administered by the mouth, a larger quantity is used at one time, and a condition of the greatest activity is necessary. It is well, therefore, to prepare the solution frequently. Make a 1-per-cent. solution of sodium chloride in distilled water, sterilise it in a flask, and when cooled below 90° F. add to it the glands, cut and bruised as directed in the Pharmacopœia. Let the mixture stand for twenty-four hours, agitating with a circular motion of the flask as often as convenient, and finish according to the directions of the official process. The resulting product is approximately normal saline solution containing the active constituents of the glands. It will remain sweet for two or three days, depending on conditions of temperature, etc., to which it is subject. The dosage is a question for the physician. At least four times the maximum official dose is, however, required for each "application."

*Durban* (55/16).—*BREWING BEER*.—Although it would hardly pay to brew one's own beer in this country, we appreciate the fact that your isolation makes the beverage a costly luxury. Before giving a recipe for home brewing it will be well to give the steps in the process as conducted in large

breweries. The processes are: (1) Malting, (2) mashing, (3) fermenting. Malting consists of steeping the barley, leaving it to germinate, and then drying in a kiln. Mashing is designed to extract the sugar and dextrin from the malt, the diastase converting the starch into dextrin. It is divided into three stages—(1) preparation of the wort, (2) boiling the wort with the hops, (3) cooling the boiled wort. The malt is coarsely ground and mixed with water in a vat. After from four to six hours hot water is added to raise the temperature to 168° F., the vat is covered, and the mash allowed to stand for from one to two hours, when the clear wort is drawn off into a covered vessel and the residue washed several times with water. The clear wort is then boiled with the hops, the object being to precipitate albumen and unchanged starch, to impart a bitter taste to the beer and secure preservation. After boiling for some hours the liquid is cooled as quickly as possible by being run into shallow vessels or by the use of refrigerators. When cooled to 60° F., the liquid is conveyed to the fermenting-vat and yeast added. Six or eight hours afterwards fermentation becomes active, the process being completed in from five to eight hours, according to the temperature of the room, which should be kept below 60° F. The beer is then run into barrels and stored in cellars, when a secondary fermentation takes place. For home brewing on a small scale the following method has been successfully employed, but you, as a pharmacist, may be able to modify it in some of the details:

Take a peck of good malt and 1 lb. of hops, put them into 20 gals. of water and boil for half an hour. Then run the liquid through a hair-cloth sieve and cool to 60° F. Add to it 2 gals. of molasses and a pint of yeast, mix, and put into a clean barrel; fill up with cold water to within six inches of the bung hole, to allow space for fermentation, and bung down tight. If the tap is inserted at the same time, it prevents disturbance afterwards. In a fortnight the beer is ready for consumption.

*Process* (96/56).—We will reply to your inquiry as soon as possible; it involves a tedious search.

*Fluxing* (139/36).—FLUXING-POWDER FOR BRASS.—The fluxes commonly employed in the manufacture of brass to remove dirt and oxide are ground fluorspar with powdered glass and acid sulphate of potassium (sal enixum). The powder you send appears to be the fluorspar one.

*W. E. G.* (128/59) sends us particulars of a treatment recommended by irregular medical practitioners for BAD LEGS, old wounds, etc. An ointment is spread on lint which has been first saturated with a lotion made from powders supplied. The ointment consists of a basis of equal parts of lanoline and vaseline, to which has been added about the same amount of prepared chalk previously tinted with yellow ochre. The powders from which the lotion is made contain boric acid 2 dr., tinted pink. For internal use a bottle is supplied of what is apparently liquor ferri perchloridi, of which one-drachm doses are taken in water night and morning. The treatment seems to be fairly successful, and should be beneficial if carried out systematically. The objection is that the prices charged are much beyond the means of the poor, and that is why our subscriber set himself to find out what are the constituents of the cure.

*Zoology* (Cape Town) (96/18).—(1) BOOKS ON PARASITES.—A translation of Neumann's book entitled "Treatise on the Parasites and Parasitic Diseases of Domesticated Animals" is published by Baillière (21s.). There does not seem to be a useful modern work dealing particularly with vegetable parasites, but we will bear your request in mind. (2) BOOKS ON MINERALOGY.—Dana and Brush's "System of Mineralogy" (Paul, 52s. 6d.) is the best descriptive work, but Miers's "Mineralogy" (Macmillan, 25s.) is a standard work and covers the whole field.

*C. E.* (145/68).—(1) OIL OF CADE is obtained by the destructive distillation of the wood of *Juniperus oxycedrus*. As to the derivation of the word "cade" there does not seem to be any definite understanding among philologists. The most likely suggestion seems to be that as the oil was formerly much used in veterinary surgery, and had a great reputation for taming animals, it may be the old word cade, derived from the French, meaning to tame or pet. (2) *Erugo, aruginis* is the Latin for verdigris, or "the rust of brass."

*Inquisitor* (119/71).—HORSE-LINIMENT used for applying to horses' legs to keep down swelling after exercise.—The sample you send is a mixture of oil of cajuput and 90-per-cent. alcohol. The proportions we judge to be 1 of oil to 2 of spirit.

*Argus* (149/43).—C.L.O. EMULSION AND GLYCEROPHOSPHATES.—The glycerophosphates may advantageously be used in the same proportion as hypophosphites. They are certainly superior in several respects.

*G. Y.* (105/15).—DOG-MIXTURE.—The following resembles your sample of general dog-mixture:

Balsam of sulphur	...	...	2 oz.
Sassafras oil	...	...	1 dr.
Olive or castor oil to make	...	...	8 oz.

Mix.

One teaspoonful to be given morning and evening.

*Huntsman* (128/61).—VETERINARY REMEDIES.—Sample A, used for the removal of swellings, which is rubbed in once daily and never blisters, seems to be tar evaporated to the consistence of an ointment. Sample B, used for the cure of thrush and other hoof troubles, is well represented by unguentum resinae. This ointment is spread on tow, which is then packed into the hoof.

*W. M.* (120/25).—REDWATER CURE.—The principal ingredient in the powder you send is sodium chloride. There is a small proportion of meal and a trace of spice. You give no indication of how the powder is used.

*Leather* (New Zealand) (82/60).—MANUFACTURE OF PATENT LEATHER.—The leather is tanned in the ordinary way—a variety of materials is used—but it must be well scoured and curried with but little oil or dubbin. It is necessary that the hides should have been freed from grease by careful scudding before tanning. After splitting the leather is treated with a stuffing consisting of—

Dry white-lead	...	...	30 lb.
Litharge	...	...	30 lb.
Raw linseed oil	...	...	50 gals.

boiled together for from six to eight hours. The skins are then stretched on frames and dried in a well-ventilated steam-heated room for from two to three days. Any defective parts are patched with leather stuck on with glue to prevent the composition subsequently applied from going through. The skins next receive a heavy coat of "daub," worked well in with a steel slicker, and are exposed to the air to dry. The daub is made by boiling linseed oil, as in varnish-making, until it becomes a jelly (which takes about twenty-four hours), when it is mixed with an equal quantity of turpentine or mineral naphtha—a dangerous operation—the naphtha being added in four portions, each being well incorporated. To each 4 gals. of this composition 1 lb. of best lampblack is added and stirred till perfectly smooth. When the first coat has dried another is applied, and this time the skins are oven-dried for from ten to twelve hours at 110° to 120° F. The next application is of linseed oil boiled to the consistence of molasses, and, after drying for twelve hours in the oven, the surface is smoothed with pumice. The varnish which is then applied is similar to the daub mentioned above, but, in place of lampblack, Chinese blue (2 oz.-6 oz. to 1 gal. of oil) is employed. This coating is dried and the surface again pumiced before giving the finishing coat, after which the leather is oven-dried at 140° F. and exposed to the air to remove the stickiness. Finally the leather is stored in a damp room, to enable the skin to regain its natural moisture.

*A. J.* (145/74).—TOBACCO-HABIT CURE.—See *C. & D.*, March 13, p. 441. We have no faith in the silver-nitrate cure, as we imagine that the metallic taste which it leaves will create disgust for food as well as smoking.

*Midlander* (148/47).—Our experience has been that synthetic perfumes are not appreciably changed by the alkali of the shampoo-powder. Citronella and verbena oils, on the other hand, alter very much in flavour after contact with alkalies. We suggest that you make a few experiments with a view to obtaining a satisfactory perfume.

*J. G.* (146/31).—RUBBER-STAMP INK.—See *C. & D.*, February 1, 1908, p. 208 (for glycerin basis), and June 12, 1909, p. 930 (for oily basis).

*Transvaaler* (126/15).—PICKLING RED CABBAGE is a simple operation. The cabbage is shredded, put into barrels along with the spice, and covered with hot vinegar. Twelve days later the vinegar is drained off, re-heated, and poured back over the cabbage. The following is the amount of spice which is needed for 25 lb. of cabbage:

Onion	...	...	4 oz.
Shallot	...	...	2 oz.
Garlic	...	...	3 cloves
Thymo	...	...	2 oz.
Sage	...	...	2 oz.
Tarragon	...	...	1 oz.
Peppercorns	...	...	1 oz.
Cloves	...	...	1/4 oz.
Bay-leaves	...	...	1/2 oz.

No preservative is required if care is taken to keep the cabbage beneath the vinegar. With some pickles a little sodium bisulphite is used as a preservative.



# NEW SALINES

IN DOUBLE OVAL, QUININE TINTED PLUG STOPPERED BOTTLES, CAPSULED.

SAMPLE FREE ON APPLICATION.

---

## **“NATURAL FRUIT SALINE” CARTONS.**

White Grapes on red ground.

White Grapes on Wedgwood blue ground.

## **“COOLING EFFERVESCENT SALINE” CARTONS.**

Icebergs, with Ship.

Norwegian Fjord.

Swiss Waterfall.

Moorish Girl at Window.

Desert Scene.

## **“UNIVERSAL SALINE” CARTON.**

Bay of Naples.

All these Cartons are printed in several colours, giving most charming and artistic effects. The labels are reduced *facsimiles* of the pictures on the Cartons.

We feel sure these new and attractive goods will meet with a ready sale, as they are far superior to anything hitherto put on the market.

Price per gross (one size only) case free

and carriage paid      ....      81/- net.

Six dozen (carriage forward), per doz.      7/- „

Smaller quantities      ....      „      7/6 „

Chemist's name and address printed on the label free of charge.      Reservation of Cartons for Towns by arrangement.

---

**ALFRED BISHOP, Ltd., 48 Spelman St., Mile End New Town, LONDON.**

# HUBBUCK'S PURE OXIDE OF ZINC.

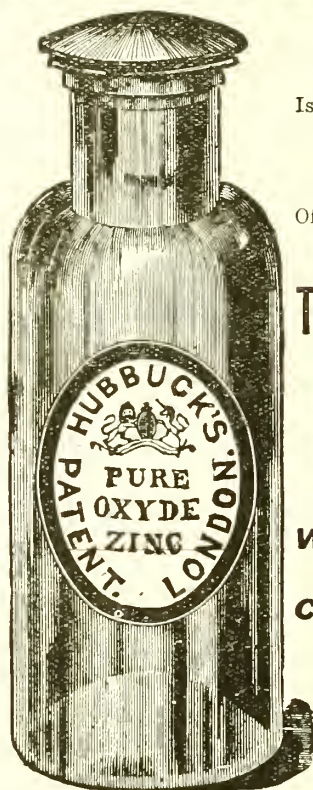
Sold by the following Wholesale Druggists  
in Boxes of 7 lbs. and 14 lbs., stamped by  
the Manufacturers; also in 1-lb. Boxes and  
1-lb. Glass Bottles:—

Allen & Hanbury's (Lim.).  
Baiss Bros. & Stevenson  
(Lim.).  
Barron, Harveys & Co.  
Bell, Jno., & Co.  
Bleasdale (Lim.). (Lim.).  
Boot's Pure Drug Co.  
Burgoyne, Burdidge &  
Clay, Doll & Co. (Co.  
Cockburn & Co. (Lim.).  
Corbyn, Stacey & Co.  
Dakin Brothers.  
Davey Hill & Co.  
Duncan, Flockhart & Co.  
Evans, Gadd & Co.  
Evans Sons Lescher &  
Webb (Lim.).  
Ferns & Co.  
Gale & Co.  
Glasgow Apothecaries' Co.  
Glasgow New Apothecaries' Co.  
Goodall, Backhouse & Co.  
Harker, Stagg & Morgan.  
Harkness, Beaumont &  
Co.  
Hartick, W. & R., & Co.  
Hearon, Squire & Francis.

Hirst, Brooke & Hirst.  
Hodgkinson, Prestons &  
King.  
Hodgkinsons, Clarke &  
Ward.  
Hornor & Sons.  
Huskisson, H. O., & Co.  
Inman's Stores (of Edin-  
boro').  
Ismay, John, & Sons.  
Lofthouse & Saltmer.  
Oldfield, Pattinson & Co.  
Pinkerton, Gibson & Co.  
Raines, Clark & Co.  
Raines & Co.  
Rankin & Borland.  
Silversides, R. B. G.  
Southall Bros. & Barclay.  
Sunner, R. & Co.  
Taylor, James.  
Thompson, John (Lim.).  
Willows, Francis, Butler  
& Thompson.  
Woolley, Jas., Sons & Co.  
(Lim.).  
Wright, Layman & Um-  
ney (Lim.).  
Wyleys (Lim.).

Barry, E. J., New York.  
Carter, Carter & Kilham,  
Boston.  
Finlay & Branswick, New  
Orleans.  
Langley & Michaels, San  
Francisco.  
Lehn & Fink, New  
York.

McKesson & Robbins, New  
York.  
Muth Brothers & Co.,  
Baltimore.  
Roller & Shoemaker,  
Philadelphia.  
Schioffelin, W. H., & Co.,  
New York.  
Shoemaker, R. & Co.,  
Philadelphia.



## HUBBUCK'S PURE OXIDE

Is made by Sublimation, and is Warranted  
to contain upwards of

**99 PER CENT.**

Of Pure Oxide; in fact the impurities are  
not traceable.

**THOS. HUBBUCK & SON,**

(Established 1765). **LTD.**

**24 LIME STREET,  
LONDON, E.C.**

Manufacturers of—

**White Lead, White Zino,  
Paints, Oils,  
Colours, Varnishes, &c.**

AUSTRALIAN OFFICE—

**34 QUEEN STREET, MELBOURNE.**

The Manufacturers supply their Pure  
Oxide Wholesale only, in quantities of  
not less than 2 cwt.

## 25% Protected Profit

Prices of Iron-Ox Tablets to the Trade.

<u>One Shilling size</u>	Under 6 dozen 10/- per dozen net. Cash with order.
	6 dozen 9/9 per doz. net in 30 days, or 9/6 cash in 10 days.
	12 „ 9/3 do. do. or 9/- do. do.
<u>Four Shilling size</u>	Under 1½ dozen 40/- per dozen net. Cash with order.
	1½ dozen 39/- per doz. net in 30 days, or 38/- cash in 10 days.
	3 „ 37/- do. do. or 36/- do. do.
<u>Mixed Orders</u>	The above terms for 6 dozen 1/- size, or 1½ dozen 4/- size will be given on mixed orders value £3. And our very best terms on mixed orders value £6.

Retail Price P.A.T.A. PROTECTED 1/- and 4/- face value. Carriage paid on all goods.

Attractive Show Cards, Window Slips, &c., Free on Application.

# IRON-OX

TABLETS.

To be obtained from all the principal Wholesale Houses or direct from **THE IRON-OX  
REMEDY CO., Ltd., 20 Cockspur Street, Trafalgar Square, London, S.W.**



ORDER  
**HOWARDS'**  
**Pure Chemicals**  
THROUGH YOUR WHOLESALE DRUGGIST.

HOWARDS & SONS. LTD., STRATFORD, LONDON, E.  
WHOLESALE AND EXPORT ONLY.

# The HOFFMANN-LA ROCHE CHEM. WORKS

7 & 8 IDOL LANE, LONDON, E.C.

LIMITED

MANUFACTURERS OF

## Fine Chemicals—Pure Alkaloids.

ACETYL. SALICYL. ACID.

'AIROL.'

ARECOLINE.

**ATROPINE.**

BRUCINE.

CAFFEINE.

**CUMARINE.**

ESERINE.

'DIGALEN.'



NARCOTINE.

HOMATROPINE.

DIACETYLMORPHIA.

**PILOCARPINE.**

THEOBROMINE.

VERATRINE.

**STRYCHNINE.**

GUAIACOL PREPS.

'THIOCOL.'

## COCAINE 'ROCHE.'

'Roche' Chemicals answer the requirements of the various Pharmacopœias.  
THEIR STANDARD QUALITY IS RECOGNISED.

Telephone No. 7270 CENTRAL.

# ROBERT BLACKIE SHEN WORKS, Tower Bridge Rd.

SPECIALIST FOR

## SPUN OINTMENTS

(Reg. Trade Mark.)

UNEQUALLED.

MAG. CIT. ... No. 1, 56/- cwt.; No. 2, 64/- cwt.; No. 3, 72/- cwt.

SALINE ... No. 1, 46/- cwt.; No. 2, 60/- cwt.; No. 3, 10d. lb.

Bulk and Packed.

## LIME CREAMS in all sizes

With various labels and varied finish. A homogeneous Pure White Cream, which keeps indefinitely and will not go thick or separate.

PRICES.

3 oz.	4 oz.	6 oz.	8 oz.	White French Limes.
21/- to 24/-	24/- to 30/-	30/- to 36/-	40/- to 48/-	per gross.



**GOLD MEDAL, PARIS, 1900.**

---

**MORPHIA.**

**CODEIA.**

**APOMORPHIA.**

**MORPHIA ESTERS.**

**J. F. MACFARLAN & CO.**

**Manufacturing  
Chemists.**

ESTD.



1780.

**Wholesale  
Druggists.**

**EDINBURGH & LONDON**

**CHLOROFORM.**

**ETHER.**

**SALICIN.**

**CHRYSAROBIN.**

---

**LISTERIAN ANTISEPTIC DRESSINGS and MATERIALS.**

---

Telegrams : "MORPHIA," EDINBURGH OR LONDON.

# ICHTHYOL

WE warn buyers that fraudulent and ineffective articles purporting to be Ichthyol, or "equal to Ichthyol," are offered by unscrupulous dealers.

Genuine Ichthyol, as it has been studied and is wanted by the Medical Profession and supplied all the time to the Trade, is delivered by us in tins and bottles under our special label with our name. The use of our registered trade mark "ICHTHYOL" for any other product means deception and dishonesty, and will entail their penalties.

Physicians, Chemists, and Druggists are requested to report to us all cases where imitation products are suspected.

**ICHTHYOL COMPANY,  
CORDES HERMANNI & CO.,  
Hamburg.**

## You save 22% to 37%

if you ask for prices for Pills, Tablets, Patent Medicines to your formula, etc.

**C. F. ASCHE & Co., HAMBURG.**

### NOTICE.

## MILK EMULSION.

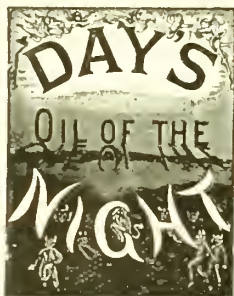
THE name "Milk Emulsion" is our Trade Mark for an Emulsion of Cod Liver Oil with Hypophosphites, and designates specially that it is our preparation. Our Emulsion is known in commerce as "Milk Emulsion," and when "Milk Emulsion" is ordered people expect to receive FAULDING'S MILK EMULSION. We hereby give notice that no other persons can use the same name on their labels, wrappers or advertisements without infringing our legal rights.

"Milk Emulsion" is sold in Bottles only, Wholesale, by—

**F. H. FAULDING & CO.**

54 Great Tower Street, London, E.C.  
54 King William Street, Adelaide, South Australia.  
341-3 Murray Street, Perth, Western Australia.  
16 O'Connell Street, Sydney, New South Wales.

## DAY'S OIL OF THE NIGHT



The great household Remedy for Chest Colds, Sore Throat, Rheumatism, Sciatica, & all aches & pains.

"A positive pain killer."—DR. GORDON STABLES, R.N.

Advertised Prices ... 1/1½ and 2/9 per bottle.

Trade Prices ... 10/- and 25/- per dozen.

CARRIAGE PAID.

Proprietors:—**DAY & SONS, CREWE, LTD., CREWE.**

Wires:  
"POEM  
HULL."

# PREMIER CASTOR OILS

**ALL  
GRADES  
AND  
PACKAGES.**

Manufactured by  
**PREMIER OIL  
EXTRACTING MILLS,  
LIMITED,  
HULL, England.**



# PRICES ISSUED WEEKLY.

Original Packages can generally be supplied at the Current Prices quoted in the Trade Report of this paper on Terms as below.

- \*Acet. Ipecac. B.P., 7 lbs. @ 1/3 lb.  
 " Scilla, B.P., 7 lbs. @ 3d. lb.  
 Acid Acetyl-Salicyl., 56 lbs. @ 2/1 lb.; 7 lbs. @ 2/3 lb.; 1 lb. @ 3/5 lb.  
 " Boric Pulv., 3 cwt. @ 28/- cwt.; 1 cwt. @ 28/6 cwt.; levigd. 3/- cwt. extra.  
 " Carbolic Xtls., 39/40; 56 lbs. @ 5d. lb.; 10-lb. Tins @ 5/6 each; Detached Cryst. 8/- each; 36 1-lb. Bots. @ 9d. lb.; Single Bots. 11d. lb.; Detached Cryst. 1 lb. @ 1/1 lb.; Crude Black, 45 Gall. Casks @ 10d. gall.; 1 Gall. Tins @ 1/6 each.  
 " Citric Cryst., B.P., 1 cwt. @ 1/4 lb.; 7 lb. in Bags @ 1/5 lb.; powder 3/4 extra.  
 " Salicyl. pulv., 1 cwt. @ 1/1 lb.; 28 lbs. @ 1/5 lb.; 7 lbs. @ 1/3 lb.; phys. pure, 1 lb. @ 3/4 lb.  
 " Tart., cryst. or pulv., B.P. 1885, 1 cwt. @ 10d. lb.; 7 lbs. @ 11d. lb.; parv. 1/2 lb. extra.  
 Aqueous Lanæ B.P., Anhydrous, 2 cwt. @ 52/6 cwt., Hydrous @ 49/- cwt.; 1 cwt. @ 2/- cwt., 28 lbs. @ 5/- cwt., 14 lbs. @ 8/- cwt., 7 lbs. @ 12/- cwt. extra.  
 Ammon. Benz., 7 lbs. @ 2/8 lb.; 1 lb. @ 3/4 lb.  
 Ammon. Brom., P.B., 1 cwt. @ 1/1 lb.; 7 lbs. @ 1/3 lb.  
 Ammon. Carb. lump, 8 cwt. @ 3d. lb.; 28 lbs. @ 4d. lb.; 7 lbs. @ 5d. lb.; powder, 1/2 lb. extra.  
 Ammon. Chlor., 99% pulv., 1 cwt. @ 33/- cwt.; 7 lbs. @ 4d. lb.; Batteries, 4/- cwt. extra.  
 Antim. Nig. pulv., 1 cwt. @ 25/6 cwt.; 14 lb. @ 33/- cwt.  
 \*Aqua Anetbi Conc. 1-40, 1 lb. @ 2/11 lb.  
 " Anisi Conc. 1-40; 1 lb. @ 3/1 lb.  
 Obolral Hydras Cryst. B.P., 7 lbs. @ 4/5 lb.; 1 lb. @ 4/9 lb.  
 \*Chloroform, 5 lbs. @ 1/11 lb.  
 \*Chloroform, pure B.P., 12 8-lbs. @ 1/7 1/2 lb.; 8 lbs. @ 1/8 1/2 lb.; 6 1-lb. bottles @ 1/10 1/2 lb.  
 Obolorophyll, 7 lbs. @ 6/- lb.; 1 lb. @ 5/9 lb.  
 Codeina, 1 oz. @ 10/4 oz.; Phosph., 1 oz. @ 8/8 oz.; Hydrochlor. or Sulph. 1 oz. @ 9/6 oz.  
 Colocynth, Apple, English ground, 1 cwt. @ 10d. lb.; 28 lbs. @ 11d. lb.; 7 lbs. @ 10d. lb.  
 Composition Powder (Coffin's), 1 cwt. @ 58/- cwt.; 7 lbs. @ 7d. lb.  
 Conf. Sennæ P.B., 14 lbs. @ 8d. lb.; 7 lbs. @ 8d. lb.  
 Cream Tartar, 98% powder, 1 cwt. @ 72/6 cwt.; 1 lb. @ 9d. lb.  
 Oreosotum Beechwood, P.B., 22 lbs. @ 1/7 lb.; 7 lbs. @ 1/9 lb.  
 Oreta c. Campb., 7 lb. @ 8d. lb.  
 " Gall. Pulv., in sacks, 10 cwt. @ 6/- cwt.; 1 cwt. @ 7/- cwt.; 14 lbs. @ 1d. lb.  
 Oreta Præparata, 7 lbs. in box, 9d. each.  
 \*Dec. Aloes Oo. Conc. 1-2, 6 lbs. @ 2/4 lb. Sine croco, 6 lbs. @ 1/2 lb.  
 \*Dec. Cinebome (Rubra) Conc. 1-7, 6 lbs. @ 1/10 lb.  
 \*Dec. Senegæ Conc., 6 lbs. @ 2/1 lb.  
 Eserine Sulph. in 15 grain tubes, 3/- each.  
 Ess. Bergam. (Oil), 12 lbs. @ 14/- lb.; 1 lb. @ 15/6 lb., not guaranteed absolutely pure.  
 Ess. Limonis (oil) original coppers, 12 lbs. @ 3/6 lb.; 6 1-lb. bottles @ 4/- lb., not guaranteed absolutely pure.  
 \*Ess. Pear (artificial), Jargonelle, 5 lbs. @ 1/6 lb.; Bergamot, 2/6 lb.  
 \*Glycerin. Boracis P.B., 6 lbs. @ 11d. lb.  
 Glycerin. Pepsine Acid P.B., 1 lb. @ 3s. lb.  
 \*Glycerine Plumbi, subacet., P.B., 6 lbs. @ 1/4 lb.  
 Guaiacol Carb., 7 lbs. @ 5/- lb.; 1 lb. @ 5/4 lb.  
 Guaiacol, pure, 1 lb. @ 3/6 lb.  
 Gum Aocacæ sorts, 3 cwt. @ 38/- cwt.; 1 cwt. @ 45/- cwt.; 7 lbs. @ 5d. lb.; English Ground Powder, No. 1, 1 cwt. @ 96/- cwt.; 7 lbs. @ 1/- lb.; No. 2, 1 cwt. @ 60/- cwt.; 7 lbs. @ 8d. lb.  
 Gum Benzoin, Samatra, 84 lbs. @ 1/4 lb.; 7 lbs. @ 1/6 lb.  
 Gum Catechu, Nig. English Ground, 1 cwt. @ 50/- cwt.; 14 lbs. @ 6d. lb.  
 Gum Guaiaci, 1 cwt. @ 10d. lb.; 28 lbs. @ 1/- lb.  
 Gum Juniper, 14 lbs. @ 9d. lb.  
 Gum Tragac. Elect., English Ground, 7 lbs. @ 3/6 lb.; 1 lb. @ 3/9 lb.  
 Honey, fine White Set, 28 lbs. @ 47/- cwt.  
 Hydrokinone, 7 lbs. @ 3/4 lb.; 1 lb. @ 3/7 lb.  
 Lin. Camph. P.B., 40 lbs. @ 10d. lb.; 9 lbs. @ 11d. lb.  
 Lin. Sapo Meth., 9 lbs. @ 7d. lb.  
 Lin. Tereb. Acet., B.P., 9 lbs. @ 1/- lb.  
 Linseed Oil, Crushed, 3 cwt. @ 16/- cwt.; 1 cwt. @ 16/6 cwt.  
 \*Liq. Ammonii Acetatis Conc. 1-7, 6 lbs. @ 10d. lb.; 1 lb. @ 1/10 lb.  
 \*Liq. Ammon. Aromat., 6 lbs. @ 9d. lb.  
 " Antim. Ohlor. Pure, 8 lbs. @ 6d. lb.  
 " Arsenicalis, B.P., 7 lbs. @ 4d. lb.; 1 lb. @ 7d. lb.  
 " Arsenii Hydrochlor., P.B., 7 lbs. @ 4d. lb.; 1 lb. @ 7d. lb.

# QUALITY. DISPATCH. PRICE.

- \*Aqua Cinnam. Cono. 1-40, 1 lb. @ 3/4 lb.  
 " Aurant. Trip., 53 lbs. @ 17/6; 6 lbs. @ 7d. lb.  
 " Aurant. Conc., 1-40, 1 lb. @ 6/1 lb.  
 " Rosa Trip., 53 lbs. @ 17/6; 6 lbs. @ 7d. lb.  
 " Rosæ Cono. 1-40, 1 lb. @ 6/- lb.  
 " Samb. Trip., 53 lbs. @ 23/6; 6 lbs. @ 8d. lb.  
 " Samb. Conc., 1-40, 1 lb. @ 6/1 lb.  
 " Laurocerasi, 53 lbs. @ 17/6; 6 lbs. @ 7d. lb.  
 " Menth. Pip. Cono. 1-40, 1 lb. @ 3/- lb.  
 Argent. Nit., 6's to oz., 25 oz. @ 1/8 1/2 oz.; 1 oz. @ 1/10 oz.  
 " Cryst., 25 oz. @ 1/6 oz.; 8 oz. @ 1/7 oz.  
 Bals. Copaibæ pure, 44 lbs. @ 2/2 lb.; 9 lbs. @ 2/4 lb.; 1 lb. @ 2/8 lb.  
 Bismuth, P.B. Carb., 14 lbs. @ 7/9 lb.; 3 lbs. @ 8/1 lb.; subnit., 1/- lb. less.  
 Caffeine Cit. B.P., 1 lb. @ 10/- lb.  
 Calamine B.P., 7 lbs. @ 9d. lb.  
 Calcii Carb. præcip., 5 cwt. @ 14/6 cwt.; 1 cwt. @ 17/- cwt.; 28 lbs. @ 19/- cwt.  
 " Hydras, P.B., 1 cwt. @ 25/- cwt.; 7 lbs. @ 5d. lb.  
 " Hypophosph. Pur. P.B. 1 lb. @ 2/3 lb.  
 " Iodid., 1 lb. @ 14/6 lb.  
 Camphor, English Flowers, "not artificial," 5 lbs. @ 1/11 lb.; 1/2 oz. 7 lbs. @ 2/1 lb.; 1/2 oz. 7 lbs. @ 2/4 lb. Crude, 140 lbs. @ 1/4 1/2 lb.; 28 lbs. @ 1/6 lb.  
 Capsicine, soluble, 1 lb. @ 6/6 lb.  
 Carbo Animalis or Ligni, powder or lump, 1 cwt. @ 14/- cwt.; 28 lbs. @ 2d. lb.  
 Carmine, Finest, 1 lb. @ 17/- lb.; No. 2, 1 lb. @ 13/- lb.  
 Cera Alba, B.P., White Moons, 1 cwt. @ 1/6 1/2 lb.; 28 lbs. @ 1/7 1/2 lb.; 4 lbs. @ 1/8 lb. Flaw, 1 lb. Blocks, 28 lbs. @ 1/6 1/2 lb.; 4 lbs. @ 1/7 1/2 lb.; 1 oz. 3 oz. Tabs, 7 lbs. @ 1/7 1/2 lb.  
 Ceteacum: No. 1, fine white, 64 lbs. @ 1/4 lb.; 7 lbs. @ 1/6 lb.; powder, 7 lbs. @ 1/10 lb.  
 \*Minimum quantity at these prices, Home Trade, 8 Winchester Quarts assorted. Export, 12 Winchester Quarts assorted.  
 NOTE.—Only Terms Net Cash with order without discount, or orders accepted through London Merchants or Bankers.  
 Goods carriage forward; all packages free; Export cases extra.  
 \*Ess. Pineapple, 5 lbs. @ 3/4 lb.  
 " Vanilla Beans, 5 lbs. @ 2/4 1/2 lb.; 1 lb. @ 4/7 lb.  
 \*Ext. Belladonnæ Liq. B.P., 5 lbs. @ 4/7 lb.; 1 lb. @ 5/- lb.  
 Ext. Cascara Sag. Liq., B.P., 10 lbs. @ 1/2 lb.  
 \*Ext. Ergot. Liq. P.B., 5 lbs. @ 3/1 lb.; 1 lb. @ 3/4 lb.  
 " Glycyrrh. Liq. B.P., 6 lbs. @ 1/6 lb.  
 " Hamamelis, Liq. P.B., 5 lbs. @ 3/5 lb.  
 " Hyoscyam., Solid, B.P., 3 lbs. @ 6/- lb.; 1 lb. @ 6/9 lb.  
 \*Ext. Ipecac. Liq. P.B., 5 lbs. @ 11/- lb.; 1 lb. @ 11/9 lb.  
 \*Ext. Nucis Vom. Liq. B.P., 5 lbs. @ 3/3 lb.; 1 lb. @ 3/6 lb.  
 " Quassia, Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/4 lb.  
 Ext. Sarsæ Oo. Solid; 7 lbs. @ 4/- lb.; 1 lb. @ 4/6 lb.  
 Ferri Ammon. Cit., B.P., 28 lbs. @ 1/4 1/2 lb.; 7 lbs. @ 1/7 lb.  
 Ferri et Quinina Cit., P.B.; 500 ozs. @ 3d. oz.; 100 ozs. @ 3d. oz.; 25 ozs. @ 3d. oz.  
 Fol. Hyoscyam. Bin., 7 lbs. @ 6/6 lb.; pulv., 5/3 lb.  
 Fol. Sennæ Tinnev. 3 1/2 cwt. @ 2d. lb.; 1 cwt. @ 3d. lb.; 7 lbs. @ 3d. lb.; English Ground, 1 cwt. @ 5d. lb.; 56 lb. @ 6d. lb.; 7 lbs. @ 7d. lb.  
 Formaldehyde, 40%, 132-lb. Carboys @ 52/- each; 7 lbs. @ 7d. lb.  
 Gingerine, Extra, 5 lbs. @ 9/6 lb.; 1 lb. @ 10/- lb.  
 \*Glycerin. Acid. Boric P.B., 6 lbs. @ 1/2 lb.  
 \*Glycerin. Acid. Carbolic P.B., 6 lbs. @ 1/2 lb.  
 " Acid. Tannic, P.B., 6 lbs. @ 1/2 lb.  
 " Belladon. B.P.O., 6 lbs. @ 2/6; 1 lb. @ 2/9 lb.  
 \*Liq. Bismuth. P.B., 6 lbs. @ 10d. lb.  
 " Copaiba Bucha et Oubeb, 5 lbs. @ 2/6 lb.; 1 lb. @ 2/10 lb.  
 " Easton., p.s. 1-3, B.P., 1 lb. @ 3/- lb.  
 " Ferri Dialysatus, 6 lbs. @ 7d. lb.  
 " Ferri Iod. p.s. 1-7, 1 lb. @ 5/9 lb.  
 " Ferri Perchlor. Fort. P.B., 7 lbs. @ 4d. lb.  
 " Ferri Phosph. Co. p.s. 1-7, 7 lbs. @ 1/6 lb.  
 " Hypophosph. Co. p.s. B.P.O., 1 lb. @ 3/4 lb.  
 " Iodi Fort. B.P., 5 lbs. @ 4/9 lb.  
 Manna, fine flake, 14 lbs. @ 2/6 lb.; 7 lbs. @ 2/10; 1 lb. @ 3/4 lb.  
 Morphinæ Acet. Hydrochlor. or Sulph., Pulv., B.P., 25 oz. @ 6/4 oz.; 16 oz. @ 6/5 oz.; 8 oz. @ 6/7 oz.; 1 oz. @ 6/11 oz.  
 Ol. Morrhuæ, 1909, finest non-freezing Norwegian 25 gall. tin lined barrels @ 69/- per barrel; 2 gal. tins @ 7/6 each.  
 Ol. Oliva, B.P., good yellow, 45 gall. Barrell @ 4/3 gall.; 2 galls. @ 5/3 gall.  
 Sodii Bromid. P.B., 1 cwt. @ 1/10 1/2 lb.; 7 lbs. @ 1/2 lb.  
 Soda Cit., B.P., 3 lbs. @ 1/10 lb.  
 Soda Salicyl. Pulv., 1 cwt. @ 1/5 lb.; 28 lbs. @ 1/6 lb.; 7 lbs. @ 1/7 lb.; phys. pur. 28 lbs. @ 2/2 lb.; 1 lb. @ 2/5 lb.  
 Soda Sulphate Recryst., 1 cwt. @ 1 1/6 cwt.; 7 lbs. @ 2d. lb.  
 Soda Sulphocarbolas B.P., 7 lbs. @ 10d. lb.; 1 lb. @ 1/1 lb.  
 \*Spt. Aether Nit. P.B., 4 1/2 lbs. @ 3/6 lb.; 1 lb. @ 3/9 lb.  
 \*Spt. Ammon. Aromat. P.B., 5 lbs. @ 2/8 1/2 lb.  
 \*Spt. Chloroformi, P.B., 5 lbs. @ 3/7 lb.  
 Sugar of Milk, B.P., 1 cwt. @ 44/- cwt.; 7 lbs. @ 6d. lb.  
 Sulphonol P.B., 1 lb. @ 9/6 lb.  
 \*Syr. Aurant. P.B., 7 lbs. @ 8d. lb.  
 \*Syr. Easton B.P., 7 lbs. @ 1/- lb.

**ALLIANCE DRUG & CHEMICAL CO., LONDON.**

Office: 34 LEADENHALL STREET.

KINDLY DETACH THIS SHEET AND PLACE IT IN YOUR BUYING BOOK.

ESTABLISHED 1772.

# HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity by  
**MESSRS. THOMAS & WILLIAM HENRY, 11 EAST STREET, ST. PETER'S, MANCHESTER.**  
 And is sold in bottles, authenticated by a Government Stamp bearing their name. Trade Mark, Henry's Calcined Magnesia.

**PRICE 4s. 6d. or 2s. 9d.**

NEW YORK—Messrs. SCHIEFFELIN & CO., William Street.

PARIS—Messrs. ROBERTS & CO., 5 Rue de la Paix.

**FRENCH HERBS,**  
 — **CROP 1909.** —

MELISSA, CAMOMILES,  
 : : ROSE LEAVES. : :  
 IRISH MOSS, OWN FISHERIES.

**H. SALLE & CIE., PARIS, 4 RUE ELZEYR.**

**ATKINSON & BARKER'S**  
**ROYAL**  
**INFANTS' PRESERVATIVE**

ON P.A.T.A. LIST.

Prices and Terms on application to

11 Russell Street, C-on-M., MANCHESTER.

**DOES**  
**NOT**  
**CONTAIN**  
 any  
**SCHEDULED**  
**POISON.**

**ESFON**

**The**  
**Nerve**  
**Food.**

**ESFON**

A Powder-Food that CURES.  
 Reinforces the NERVES.  
 Strengthens the system.  
 Appeals especially to Vegetarians.  
 Most palatable and really curative.  
 Interesting booklet on the relation  
 of food to the nervous system.  
 A booklet on the counter and the  
 Food sells itself.  
 Minimum retail price, 1/6, 3/4, 6/4.

**C. J. BURT,**  
 12 & 13 Henrietta St., London, W.C.

**VISCOSE**  
**BOTTLE CAPS**

**For CAPPING EVERYTHING**  
 whether corked, stoppered or sprinklered.  
**BETTER APPEARANCE,**  
**MORE EFFICIENT AND EASIER**  
**TO APPLY THAN ANY OTHER**  
**CAPPING.**

Strong, perfect fitting, SELF-FIX-  
 ING, air-tight and spirit-tight, &c. &c.

VISCOSE DEVELOPMENT CO., Ltd., 3 New Court, Carey Street, London, W.C.

**EXTRACT OF LIQUORICE**  
**and MENTHOL PELLETS.**

**CUSHION SHAPED.**

**THE ORIGINAL AND THE BEST.**

3s. 6d. per lb. Also in Tins at 2- and 4/- doz.

**E. ERNEST JACKSON,**

Crediton, Devon, & 291 Kingsland Road, London, N.E.

Telegrams:  
 "Jackson Crediton."



One of many  
letters received

May 11.09.

Dear Sirs

We feel that a word of praise is merited by you for your exceeding promptness and attention to orders and we express it here right heartily. So long as you continue to charge lowest prices and handle our orders in the most exemplary way in which you treat them at present so will our business with you increase.

Send business card for our Carriage Paid terms and 1909 Catalogue of very low prices. Free packages with carriage paid orders.

---

---

*Sangers* 258 Euston Rd., London, N.W.

# Judson's Wax Polish

For Linoleum, Furniture,  
Stained Floor Edging, etc.



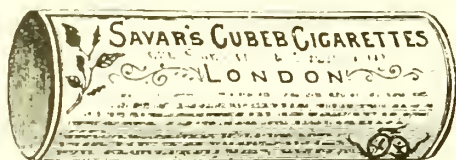
3d., 6d., and 1/- Tins.

Write for Samples and Prices.

**DANIEL JUDSON & SON,**  
Mack's Road, BERMONDSEY, S.E.

**Sells Well!  
Pays  
to Sell!!**

## SAVAR'S CUBEB CIGARETTES



A Real Relief in  
**ASTHMA, CATARRH, & THROAT COUGHS**

On P.A.T.A. List.

1/- & 2/6 boxes; minimum retail prices, 11d. & 2/3,  
8/6 & 20/- dozen net.

A Beautiful Showcard on Application.

**EVANS SONS LESCHER & WEBB,**  
LIMITED.  
LONDON and LIVERPOOL.

## Tidman's Sea Salt CAUTION.

The great reputation of TIDMAN'S SEA SALT during the past half-century, as a preventive and cure of almost all forms of disease, especially Anæmia, Weakness, Want of Tone, Rheumatism, Rickets, &c., has led to imitations, and a few traders are unscrupulously offering in its place inferior kinds of ordinary Salt. These are useless, and even in some cases injurious, for bathing, and when sold as SEA SALT they are fraudulent, and the vendors are liable to prosecution. Information should be given to TIDMAN & SON, Ltd., Wapping, London, E.

Tidman's Sea Salt is sold only in packets, bags, and boxes from one penny upwards. 1-cwt., 10/-;  $\frac{1}{2}$ -cwt., 5 3;  $\frac{1}{4}$ -cwt., 3/-, carriage paid to any part of the United Kingdom. Trade terms, showing good profits to the retailer, also showcards, &c., by post on application.

CARRIAGE FREE

**CENT. PER CENT. PROFIT**

Special CASH OFFER for WINDOW DISPLAY.

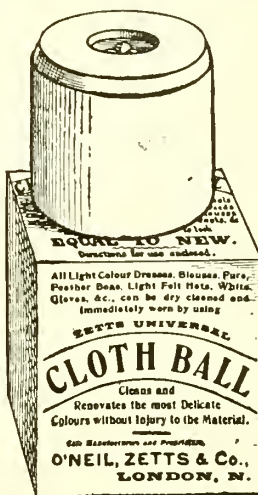
As a trial  
order we  
are  
prepared  
to send—

1 doz.  
6d. size  
and  
1 doz.  
1/- size

FOR

**5/3**

CARRIAGE  
FREE.



As a trial  
order we  
are  
prepared  
to send—

1 doz.  
6d. size  
and  
1 doz.  
1/- size

FOR

**5/3**

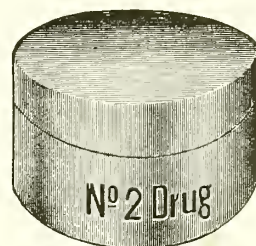
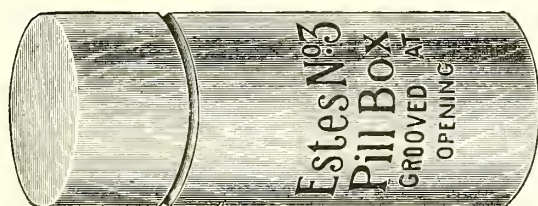
CARRIAGE  
FREE.

We print your name and address on three times the above quantity.

**O'NEIL ZETTS & CO.**  
182 Stroud Green Road, N.

CARRIAGE FREE





**Cheapest Boxes of any description made in the World.**

ESTABLISHED 1847.

# **ESTES'**

## **American Turned**

### **Wooden Boxes & Wooden Bottles**

... FOR ...

**PILLS, POWDERS, WAFERS, TABLETS,  
DRUGS, CHEMICALS, and LIQUIDS.**

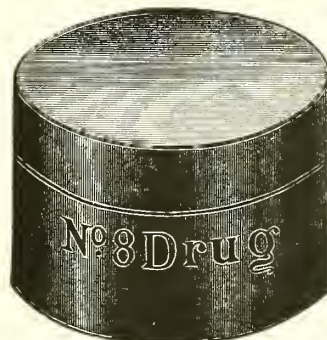
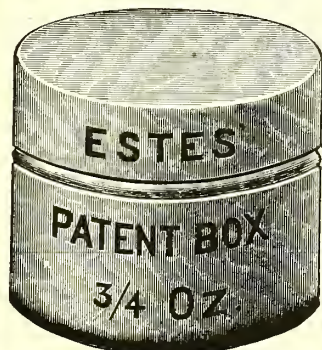
**Also Mailing Cases & Syringe Cases.**

E. B. ESTES & SONS, NEW YORK, MANUFACTURERS.

# **MAY, ROBERTS & CO.**

**7, 9, & 11 Clerkenwell Road, London, E.C. LTD,  
— 16 Westmoreland Street, Dublin. —**

**SOLE AGENTS FOR THE UNITED KINGDOM.**





# HOT-WATER BOTTLES

**GUARANTEED FOR 2 YEARS.**

Both "heavy" and "light" bottles are made from  
**best quality rubber.**

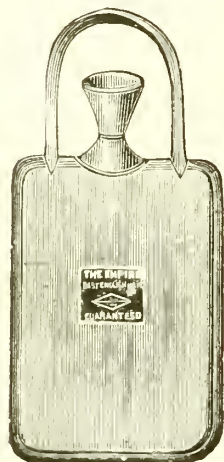


Fig. 955.

**TOP HANDLE.**

SIZES.	HEAVY. s. d.	LIGHT. s. d.	PLUSH COVERS. s. d.
6 x 8 inch ...	2 8 each	2 5 each	0 8 each
6 x 10 " ...	3 0 "	2 8 "	0 8 "
6 x 12 " ...	3 5 "	3 1 "	0 10 "
8 x 10 " ...	3 8 "	3 2 "	0 10 "
8 x 12 " ...	4 2 "	3 7 "	0 11 "
8 x 14 " ...	4 9 "	4 2 "	0 11 "
10 x 12 " ...	4 9 "	4 2 "	0 11 "
10 x 14 " ...	5 4 "	4 10 "	1 0 "
12 x 14 " ...	6 2 "	5 7 "	1 2 "

N.B. Owing to the recent enormous rise in the price of raw rubber we are compelled to add an advance of 10% on above prices. This advance will be taken off the moment the state of the market permits, but as the present indications point to still higher prices, we strongly advise all our friends to place their orders for winter stock at once.

Each one in neat paper bag with directions for using.

For orders of two dozen bottles assorted we will put rubber tablet with customer's name on free of charge.



Fig. 957.

**SIDE HANDLE.**

5% discount allowed for prompt cash off above prices. Carriage paid on orders of £2 and upwards to any town in the United Kingdom.

**OUR GOODS ARE RIGHT AND PRICES LOW.**

WRITE FOR NEW ILLUSTRATED PRICE LIST, POST FREE.

**BURGE, WARREN & RIDGLEY, LIM., 91 & 92 GREAT SAFFRON HILL, LONDON, E.C.**



**VINCENT WOOD**  
For BRITISH MADE  
**Hot-Water Bottles.**

One Quality only—  
**BEST and RELIABLE.**

10 x 8 3/4, 12 x 8 3/4 each.

Other Sizes in Proportion.

**Also NEW COVERS.**

**CHEST AND LUNG PROTECTORS,  
WINTER BODY BELTS, TRUSSES,  
ELASTIC HOSE, and  
Surgical Appliances generally.**

4 Albion Place, Blackfriars Bridge,  
Send for List. LONDON, S.E.

**THE NEW  
'ADAPTABLE' HOT WATER BOTTLE**

(REGISTERED DESIGN.)

Suitable for many purposes for  
which the old-fashioned shape  
is useless

For **BED WARMERS.**  
For **CARRIAGES.**  
For **MOTOR CARS.**  
For **INVALIDS, &c.**

Customers can have their names, &c.  
printed on reverse side.

**LOW PRICES. BIG DISCOUNT.**  
Sole Manufacturers:—

The Fulham Pottery & Cheavin Filter Co., Ltd., FULHAM,  
LONDON, S.W.



**BAY 24, Bakers', } Exhibition,**  
**Grocers' }**

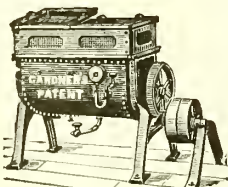
AGRICULTURAL HALL, LONDON, N.

**SEPT. 4th to 11th, 1909.**  
18th to 25th,

See Large Exhibit of

**GARDNER'S**  
**PATENT "RAPID"**  
**SIFTERS & MIXERS,**

And other Machines.



**WM. CARDNER & SONS, Ltd., Engineers, GLOUCESTER**

**VERNON & CO. LTD.**

Penwortham Mills, PRESTON,

MANUFACTURERS OF

**ABSORBENT LINTS,  
COTTON WOOLS,  
GAUZE TISSUE,  
SANITARY TOWELS, &c.**

We spin the yarns from the raw material, weave the cloth,  
bleach, raise, and finish on our own premises.



NOW IS THE TIME TO RENEW YOUR STOCK OF  
**HOT-WATER BOTTLES**

¶ Our "Vanoric" range withstands the hardest wear, and presents several novel points in construction.

**PRICES RIGHT. QUALITY RIGHT.**

¶ We have been manufacturing Rubber Goods for sixty years, and our present season's range of patterns comprise all the newest and best to meet up-to-date requirements.

Our Current Price List of INDIA RUBBER GOODS of all descriptions for Chemists and Druggists forwarded on application.

**THE HUTCHINSON COMPANY,**  
 70 BASINGHALL STREET, LONDON, E.C.

Telephone: 3265 WALL.

Telegrams: "HUTCHINSON, LONDON."

The Original and only Genuine

**Allcock's**

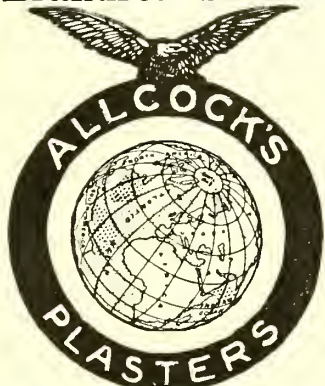
**POROUS**

**PLASTERS**

A REMEDY OF 60 YEARS' STANDING.

**Allcock's Plasters**  
**Allcock's Corn and**  
**Bunion Plasters**  
**Brandreth's Pills**

*The  
 Three  
 Reliabilities.*



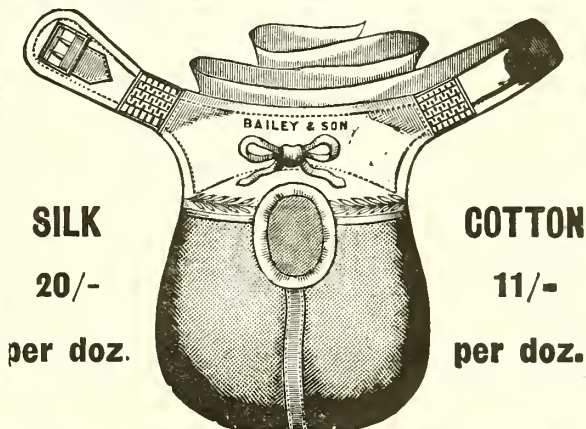
A HANDSOME  
 SHOWCARD  
 will be sent  
 free of cost  
 and post paid  
 on application.

ALLCOCK  
 MANUFACTURING  
 COMPANY

22 Hamilton Sq.,  
 Birkenhead.

"Sold all round the World."

**BAILEY'S**  
**"A.B.C."**  
**SUSPENSORIES.**



**SILK**  
 20/-  
 per doz.

**COTTON**  
 11/-  
 per doz.

Assorted—A, small; B, medium; C, large bags.

**W. H. BAILEY & SON,**  
 38 OXFORD STREET, LONDON. W. [3]

## Prepare for a Change

PUSH THE SALE OF YOUR  
OLD STOCK OF

### HIMROD'S Cure for Asthma

Our New Style Package appears soon and every dealer should be ready to meet the demand for it.

The Original Advertising Features of our new package will increase its sale and meet with your favour.

BE PREPARED!

Always Advertised—  
Always Selling.

For Prices write to  
C. E. Fulford, Ltd., 45 Cowcross St., London, E.C.

# Zam-Buk

## EPINEPHRIN.

**EPINEPHRIN** is Prof. Abel's name for the blood-raising principle of Suprarenal Capsules. It is sold under various trade names, for which see *British Pharmaceutical Codex*, page 62.

**EPINEPHRIN** has been made by us since 1906 of such a high degree of activity that '5 cc. of a solution of 1 in 1,000,000 invariably gives a distinct rise of pressure when injected into the blood stream.

For Lists of Preparations and Prices apply to

**BRADY & MARTIN, Ltd.**

Original Makers of Animal Extracts and Products, since 1891,  
Northumberland Road, NEWCASTLE-UPON-TYNE.

GOOD NEWS FOR ALL.

# ZOTOS

The Infallible Remedy against  
**SEA - SICKNESS,**  
**TRAIN-SICKNESS, &c.,**  
has proved itself

A BOON TO TRAVELLERS AND A  
SOURCE OF PROFIT TO THE TRADE.

**ZOTOS** is being extensively advertised,  
and commands a ready sale.

**ZOTOS** is certified to contain no in-  
jurious drug by Mr. Ernest J.  
Parry, [B.Sc., F.I.C., F.C.S.];  
has no bad after-effects; is absolutely harmless.

**ZOTOS** is on the P.A.T.A. List.

REMEMBER every Traveller requires a box of  
"ZOTOS," and all Travellers call at their  
Chemist's for supplies before going on a voyage.

Sole Proprietors:

**ZOTOS LTD** 32-34 Theobald's Rd.,  
LONDON, W.C.  
Telephone: 2348 City. Telegrams: "Zotosetto."

## IMPORTANT NOTICE.

Alteration of Title and Advertising Offer.

There is an erroneous impression that SMITH'S CUREXEMA SKIN OINTMENT is for Eczema only. The Ointment is of use for many other Skin Ailments, and consequently I have decided to alter the name to the registered word

# HEALO,

as being more descriptive. The composition remains the same.

The sale has greatly increased since this line was put on the P.A.T.A., three years ago, there being now upwards of 500 Special Agents.

Applications for New Agencies, in districts not yet covered, are invited. I advertise **HEALO** in 100 weekly papers, and I am willing to extend the number, inserting Local Agents' names.

A liberal supply of Free Samples for counter distribution sent, and attractive Show-cards for Window Show (which will be paid for).

On £2 Orders **HEALO** shows a net profit of 60% on the outlay.

**MAURICE SMITH,** Manufacturing Pharmaceutical Chemist, KIDDERMINSTER.

THE "GIANT"  
REMEDY.

Tel. Add.:  
"Giant,  
Plymouth,"

# BOX'S PILLS

WRITE FOR  
TRADE TERMS.

Re-christened  
by the Americans

"The Great English Remedy."

1s. 1½d., 2s. 9d., 4s. 6d., 11s., and £1 1s.


Prepared only by

**W. H. BOX, 161 KING ST., PLYMOUTH.**



# L AIRITZ'S

## PINE WOOL PREPARATIONS



**OLDEST & ONLY APPROVED REMEDY**

for

**GOUT, RHEUMATISM, AND ALL OTHER NERVOUS DISORDERS.**

Pine Needle Oil from 1/1	Pine Lozenges... from 1/1½	Pine Toilet Soap from 9d.
Pine Wadding... „ 6d.	Pine Bath Extract „ 1/1½	Pine Wool Chest Protectors 3/3

Obtainable from BUTLER & CRISPE, NEWBERRY & SONS, SANGERS, MAY, ROBERTS & CO., EDWARDS & SONS, BARCLAYS, and all Wholesale Patent Medicine Vendors.

*Sole Wholesale Distributors—*

**ERNEST GUTMANN'S SUCCESSORS**

**8 LONG LANE, ALDERSGATE STREET, LONDON, E.C.**

# SURGICAL DRESSINGS.

**ABSORBENT COTTON LINTS.**

**FLAX LINTS.**

**ROLL BANDAGES.**

**COTTON WOOLS.**



**"GAMGEE TISSUE"**

(Patent Absorbent Gauze and Cotton Wool)

AND

**ASEPTIC and ANTISEPTIC DRESSINGS.**

MANUFACTURED BY

**ROBINSON & SONS, LIMITED,**

**COTTON SPINNERS, WEAVERS, And BLEACHERS,**

**Wheat Bridge Mills, CHESTERFIELD.**

And 55 Fann Street, Aldersgate Street, LONDON, E.C.



**DO NOT REFUSE ORDERS, BUT WRITE,**

and instructions for taking Measures and Prices of the best Surgical Appliances for the following cases will be forwarded per return.

**J. H. HAYWOOD, LIM.**

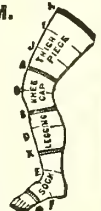
*Surgical and Athletic Appliance Manufacturer,*


**CASTLE GATE, NOTTINGHAM.**

Specialities: TRUSSES for Ruptures of all kinds.

Special Quality for Colliers, Engine Drivers, &c. Ladies' and Gentlemen's Supporting Belts and Bandages. Poro-Plastic Jackets and Steel Instruments for Curvature of the Spine moulded to the Patients as in London. Splints and Instruments for Deformed Feet and Legs. Chest Expanding Braces for Stooping Shoulders and Contracted Chests. Patent Elastic Surgical Stockings, without Seams, for Varicose Veins, Sprains &c. Magnetic Belts and Appliances for all parts of the body. India Rubber Appliances, Invalid Furniture, Bath Chairs, Carriages, Crutches, Ear Trumpets, Throat, Ear and Nose Instruments, &c. Artificial Arms, Legs, &c. Strong Cheap Articles for Working Men. Appliances scientifically made and carefully fitted at the Manufactory.

*Invalids waited upon at their own Residence (by Lady Attendant) if wished.*





## DISPENSING BOTTLES & PHIALS.

**I. ISAACS & CO.,** Glass Bottle Manufacturers.  
106 Midland Road, St. Pancras, London, N.W.

**Beg to call attention to their REDUCED PRICES.**  
We make the New Shape, Oval Fronted Bottles. No extra charge.

**FIRST QUALITY.**

3 & 4 6 & 8	12	16 ounce.	} Round edges, plain or graduated, quinine tinted
9/- 10/- 15/-	20/-	per gross	

**SECOND QUALITY.**

3 & 4 6 & 8	12	16 ounce.	} Round edges, plain or graduated, clear blue tinted
7/6 8/6 12/-	18/-	per gross	

**PANEL BOTTLES (reduced prices).**

2 3 4 6	8 ounce
7/6 8/- 8/- 9/- 10/-	per gross.

**WHITE PHIALS—GOOD QUALITY.**

3/6 4/- 4/6	2 ounce	} Plain or teaspoons.
	5/6 per gross	

Six gross and upwards, assorted or otherwise, sent carriage paid to any address in the United Kingdom. Smaller quantities not carriage paid.

Established 50 years. Bankers: London and Westminster Bank

ESTAB. 1871.

CONTRACTORS TO WAR OFFICE, ETC.

# CORKS FOR CHEMISTS.

We are the **ONLY CORK FIRM** that makes a speciality of

## RETAIL CHEMISTS' CORKS.

FINEST QUALITY SELECTED BOTTLE & PHIAL CORKS AT LOWEST PRICES EVER OFFERED.

WRITE FOR FREE SAMPLES & PRICE LIST.

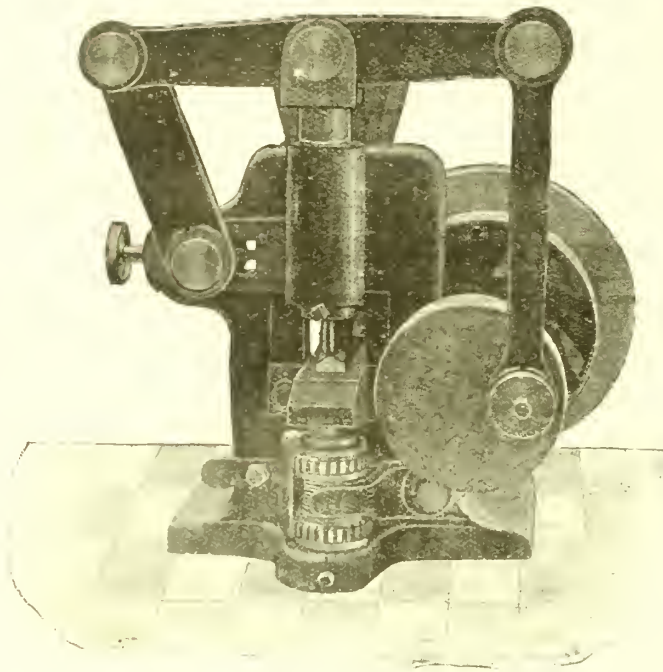
**N.W. Mitchell & Sons, Ltd.**

BOUCHON WKS.; 15-17 FARRANCE ST., LIMEHOUSE, LONDON. E.

# TABLET MACHINERY.

Tablet  
Machines  
in 3 sizes, to  
produce  
Tablets from  
 $\frac{1}{8}$ " to  $1\frac{1}{4}$ " dia.

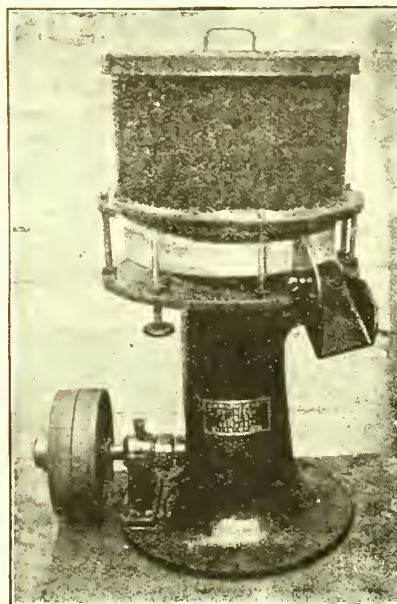
Also  
Lozenges  
of all shapes.



A new type  
of Machine  
in which  
ease of  
adjustment  
and rapidity  
of changing  
dies is a great  
feature, also  
strength and  
simplicity.

## - THE - "SPEEDY" OINTMENT MILL.

The Machine  
that is used  
in  
60 British  
Laboratories.



EMULSIFIERS,  
MIXING  
MACHINES,  
GELATINE  
CAPSULE  
MACHINERY,  
&c., &c.

# S. W. WILKINSON & CO.

*Engineers and Specialists in Pharmaceutical Machinery,*

LITTLE HOLME ST. WORKS, BRAUNSTONE GATE, LEICESTER.



# Potter & Clarke's "FIVE BARKS" JUBES



SEND FOR  
SAMPLE.

SEND FOR  
SAMPLE.

4 lb. Enamelled Tins	...	...	...	9d. per pound.
7 lb. Plain Tins	...	...	...	8d. " "
4 oz. Packets (1 doz. in box)	...	...	...	23 per dozen.

OUR NEW POSTER, "THE GOOD SAMARITAN," SENT WITH EVERY TIN.

## "FIVE BARKS"

are the best selling Cough Jubes ever introduced to the British public.

There are nothing like them on the market. A Sample Box will prove their value.

May be ordered from any Wholesale House, or from the Makers—

**POTTER & CLARKE, LTD.,** 60-64 ARTILLERY LANE, **LONDON, E.**

**FRED<sup>K</sup>. FINK & CO.**

10 &amp; 11 MINCKING LANE, LONDON, E.C.

**SPECIALITIES:** Dextrine—Gum Arabic—  
Gum Tragacanth—Pure Beeswax—  
Ceresine Wax—Honey, &c.

**Dentistry**FOR DENTISTS AND CHEMISTS REQUIRING  
RELIABLE WORKMANSHIP.

Most Perfect Workmanship. Best Materials, and Artistic Finish Guaranteed.  
My Assistants are the pick of the London Dental Mechanics.

Price List of **A. G. FENTIMAN,** 42 Bishopsgate Without,  
LONDON, E.C.  
Telegrams: "FENTIDENT LONDON." Telephone: London Wall, 7.

Your orders for Season-  
able Sundries will receive  
prompt attention if sent  
to the—

**WASHING GLOVES  
BATHING CAPS  
SPONGE BAGS**

**GALEN MANUFACTURING  
CO., LTD.**

WILSON STREET, NEW CROSS, S.E.

**DIABETES****G. VAN ABBOTT & SONS, London, S.E.**

Manufacture all foods for above.

Established 1859.

Tel. : 7018 Central.

Telegraphic Address: "Glutens London."

EVERY DESCRIPTION OF

**SPREAD PLASTERS—Surgical, Medical, Porous, &c**  
(Rubber and Plumbi Base),

**BANDAGES, SURGICAL DRESSINGS**

Sole Agents in Great Britain for

*Rumpf's Crêpe and Lisle Bandages ("The Geneva")*.**LESLIES, Ltd.,** Spencer House, South Place, Finsbury, E.C.**GRAPELAX.**

By SPECIAL APPOINTMENT TO THE GREEK ROYAL FAMILY.

The Ideal Tonic Laxative for Children.

**GRAPELAX** pleases the Trade. It is on the P.A.T.A. list with re-  
munerative terms.

**GRAPELAX** pleases the Medical Profession. There is no mystery  
or secret.

**GRAPELAX** pleases the Public, for it is a genuine and effective and  
palatable medicine for Children.

Order from the Wholesale  
houses, or direct from **GRAPELAX, LTD., 379 STRAND, W.C.**

Carriage Paid. P.A.T.A. conditions

Chemist.

**KRUSCHEN SALTS,**

produced by evaporation from the celebrated mineral springs. A perfect diuretic  
aperient for the treatment of Rheumatism, Gout, Constipation and Inactive Lives.

Liebig's Analysis: Soda Sulph., Soda Chlorid., Soda Phosph.  
Magnes. Sulph., Magnes. Chlorid., Potas. Sulph., Potas. Chlorid.

Minimum Retail Price, 1/6. Wholesale, 13/6 per doz net.

**E. GRIFFITHS HUGHES,** 17 Deansgate, Manchester.

**MAWSON & Co's****Medicinal and Veterinary Capsules, etc.**

Accurate, Reliable, Moderate Price.  
List and Samples on application.

**213 High Rd., STREATHAM, LONDON.**

Tel. 816 Streatham.

**PRECIPITATED CHALK.**

EXTRA LIGHT AND ALL GRADES TO SUIT EVERY PURPOSE.

CHEAPEST SELLERS IN THE MARKET.

**AUG. LEVERMORE & CO., 8, 9 & 10, Great St. Helen's,  
LONDON, E.C.**

TELEGRAMS: "LEVERMORE LONDON." TELEPHONE: 4613 CENTRAL

**W<sup>m</sup> POPPELREUTER, MANCHESTER**

**TERPENELESS CONCENTRATED  
non-clouding ESSENTIAL OILS.**  
**HEINRICH HAENSEL'S**  
Unequalled Speciality.

**THE RAT WAR!!!**Please try a dozen of each size  
from your Wholesale House.

**FARMER'S "BAITED" PHOSPHOR PASTE**  
Sells well. **TO THE FRONT.** Mixed perfectly  
Good Profits. by special process.

FULL PRICES, viz.:—3d., 6d., 1s., obtained at 1s. 5l., 2s. 10l., 3s. 8d. dozen.

ONCE USED, ALWAYS.

AGENTS: May, Roberts & Co., Barelays, Edwards, Sangers, Butler & Crispe,  
W. Sutton & Co., Hovendens, Burgoyne, Harbidge, & Evans Sons Lescher &  
Webb. Sole Proprietors—

**F. FARMER & CO., 17 Poole Rd., S. Hackney, LONDON, N.E.** (For Home & Export Trade).**Dr. Stedman's Teething Powders**

1/1½ size 2/9 4/6 11/-  
6/6 doz. 18/- doz. 34/- doz. 120/- doz.

Discount 5 per cent. on £10 worth for cash.

Showcards on Application.

**GUM LANCET****TRADE MARK 125 NEW NORTH ROAD, LONDON, N.****DOG AND CAT MEDICINES**

will increase your Sales.

LIBERAL TERMS.

HIGH CLASS GOODS.

Books on Disease, Show Cards, and Pedigree Forms sent free.

**THE "WILSON" VET. MED. MANUFACTURING Co., Ltd.**

Telephone No. 41 Ashford.

**ASHFORD, MIDDLESEX.****INSECTICIDES**

AND

**HORTICULTURAL REQUIREMENTS.**

Write for particulars to:—

**WALTER VOSS & CO., LTD., Millwall, London, E.****FREE FREE FREE**

One Dozen of Dr. Hoffman's Celebrated **RHEUMATIC POWDERS,**  
THE GREAT GERMAN RHEUMATIC CURE,

Value 13/6 To Every Chemist Qualified or Unqualified, Value 13/6

sending in an order for 3 doz. Dr. Hoffman's Celebrated Rheumatic Powders  
on or before October 1, 1909. Price 9/- per doz., retail 11/-; large size 28/-  
per doz., retail 2/9.

**INTERNATIONAL CHEM. CO., 324 Caledonian Road, LONDON, N.**

Sole Proprietors of Dr. Hoffman's Celebrated Rheumatic Powders, Sanquo  
Weight Producer, Sanquo Gold Tablets, Varico—The Great Skin Ointment.

**SWIMMING FLOATS (Father Neptune's).**

The only ones  
provided with  
a special

**SAFETY BAND.**  
BUOYANCY  
UNEQUALLED.



Best English  
workmanship  
guaranteed.

No more popular  
or profitable line  
on the market.

**F. SCHUTZE & Co., Black Bull Works, Caledonian Market, LONDON, N.**



## DENTISTRY

(Mechanical.)

EXPERT WORKMANSHIP. PROMPT SERVICE.  
POPULAR PRICES. GUARANTEED MATERIALS.

"Dentistry for Chemists" post free. "Everyday Dentistry," 3/6.

F. C. WARDALE & CO., 132 High Street North, East Ham.  
Tel. No. East Ham 174. Tel. Address "Eladraw London."

TO WHOLESALE BUYERS & SHIPPING MERCHANTS ONLY.

FOR ALL KINDS OF

## CAPSULES & PERLES.

Hand-made or Machine-made. "TYE'S" will ensure purity of contents and best finish. Specially prepared to suit all climates.

JOHN TYE & SON — Manufacturing Chemists, —  
(Established 1845), PACKINGTON STREET, LONDON, N.

70% profit on outlay. P.A.T.A. 3d. Wholesale, 21s. gross.

## Goodman's Corn File.

Mounted on well designed and engraved cards of 1 doz.

SELLS AT SIGHT. Send 3s. 6d. for two cards, carriage paid, from

T. C. LINDSEY & CO., Ltd., Sole Makers,  
17 Leather Lane, LONDON, E.C.

Or may be obtained through any of the wholesale houses at 1/9 doz.  
See ANTI-CUTTING RECORD for July, page 155.

## First - Class Mechanical Dentistry.

Reliable workmanship. Popular prices. Moderate charges for gold, D.A., Tubes, Seamless Gold Crowns, Sections, Vulcanite, &c. Ash's and D.M.Co. Teeth and Rubber guaranteed. Punctuality strictly observed. List free. Trial case solicited. Gold and D.A. work a speciality. Special cheap rates for show case pieces. 16 years' experience of first-class mechanical dentistry.

E. C. HALDER, 46 New Cross Road, LONDON, S.E.



SPECIALITY:

## 880s LIQUOR AMMONIA

Pure by Chemical Analysis. Equalled only by VOLCANIC AMMONIA.

Sold to large Wholesale Drug Houses over 30 years, and has given the highest satisfaction.

BROWN & BLACKBURN, (Sales Dept.,) THONGSBRIDGE.  
ESTAB.] HUDDERSFIELD. [1876.

## HOT WATER BOTTLES BEST ENGLISH MAKE.

Write for Prices to: JAMES TOMPKINS, LTD.,

Rubber Manufacturers,

Established 32 Years. 386 CITY ROAD, LONDON, E.C.

## DENTISTRY FOR DENTISTS

by FENTIMAN & CO. (A. J.),

Practical Dentists in Gold, D.A., Tubes, Crowns, Gum Sections, Vulcanite, Celluloid, Strengthened Rubber, Reg. Cases (Angles), Obturators, &c.

Telephone: 9977 London Wall. Telegrams: "Lullingly London."  
Postal—East Smithfield, Tower Bridge. Established 1835.

NO OTHER ADDRESS.

## DIABETES

FOODS AND GLUTEN PRODUCTS.

CALLARD & CO., 74 Regent St., LONDON.

## NATURAL HISTORY.

We stock every description of APPARATUS, CABINETS, BOOKS, and SPECIMENS for COLLECTORS of BIRDS' EGGS, BUTTERFLIES and MOTHS, PLANTS, &c.

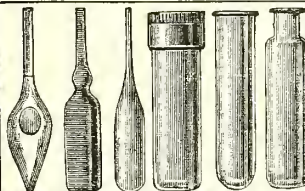
CATALOGUE POST FREE.

WATKINS & DONCASTER, 36 Strand, London, W.C.

## TOBACCOS! CIGARS! CIGARETTES!

Every known Brand at Manufacturer's own List Prices. Endless variety of Tobacconists' Fancy Goods & Shop Fittings. The Trade only supplied. Opening orders a Speciality. Send for Price List.

SINGLETON & COLE, Ltd., Cannon Street, BIRMINGHAM, AND BRANCHES.



JOS. ZAHRADNIK,  
Glass-ware manufactory Miletin,  
BOHEMIA, AUSTRIA.

Glass-packings for chemical-pharmaceutical purposes. All surgical and medical necessities in glass for hygiene and the treatment of the sick. Chemical-physical glass instruments of all kinds.

7/3 IS THE COST OF A DOZEN ASSORTED

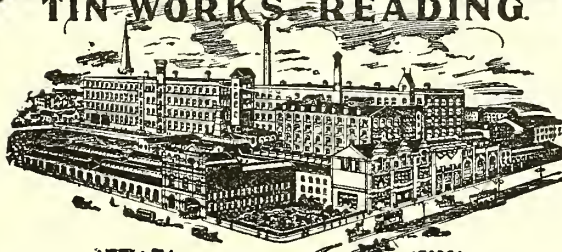
## Christy's Rose Pots

CHRISTY'S, 4 OLD SWAN LANE, E.C.

# HUNTLEY, BOORNE & STEVENS, LTD

TIN WORKS - READING.

COLOR  
PRINTERS  
ON TIN.



MAKERS OF HIGH-CLASS.  
DECORATED & PLAIN TIN BOXES.  
& SPECIALITIES FOR CHEMISTS.

Quotations to samples  
or descriptions.  
CORRESPONDENCE INVITED.

Telegrams  
"tinworks" Reading. National Telephone, 29.

By Royal Warrant to  
H.M. The King.



By Royal Warrant to  
H.M. The King.

Only  
ONE  
Address.

**DAY & SONS,** ESTABLISHED 1840.  
**CREWE. LTD. (CREWE)**  
HORSE, CATTLE, SHEEP & DOG MEDICINES.

Only  
ONE  
Address.

**LARGEST SALE IN THE WORLD.**



### DAYS' BLACK DRINK

Cures Colic or Gripes in Horses or Cattle, Scour and Weakness in all Young Stock, Blown Cattle and Sheep, Debility, Chills, and Low Condition in all Stock.

Price 1/8 per bottle.

### DAYS' HUSKOLEIN.

Almost infallible for Tape Worms in Lambs and other Animals; for Husk or Hoose in Calves, Lambs, &c. A speciality for Worms in Horses and Colts.

6/6 per bottle.

### DAYS' "ZOMO-SAL."

For Blood Disorders, Humours, General Weakness, Surfeits, Indigestion, Sterility, &c., in Horses and Beasts. Promotes Growth of Bone. Makes animals "fit" for Show or Sale.

In Canisters at 7/6, 20/-, and 40/-

### DAYS' RED DRINK

OR COW DRENCH.

For Costiveness, Loss of Oud, Indigestion, Garget, Colds, Fever, Hidebound, &c., in Cattle. Prepares Cows for calving. Prevents Milk Fever, and cures Bad Cleansing.

12/- per doz. packets.

The Ewe Drench for Ewes, 3/6 per doz.

### DAYS' OILS

(THE PURIFIED DRIFFIELD OILS)

Heal all Wounds in Horses, Cattle, and Sheep, Sore Teats and Swollen Udders in Cows and Ewes. For Anointing in difficult Lambing or Calving.

2/8 and 6/- per bottle.

### DAYS' WHITE OILS.

A Safe Embrocation for Sprains, Swellings, Windgalls, Sprung Sinews, Rheumatism, Sore Throat, Weak Joints, &c.

2/6 and 6/- per bottle.



## DAY & SONS' "ORIGINAL" MEDICINE CHESTS

Price £1 4s., £2 4s., £5, and £10 10s.; Carriage Paid.

Arranged for Horses, Cattle and Sheep; Horses only; or to suit any class of stock.

WHEN ORDERING PLEASE STATE REQUIREMENTS.

The Chest Illustrated is similar to that at £5 and £2 4s.

Great Specialities.

ONLY GENUINE FROM  
**DAY & SONS, CREWE, LTD.,**  
**CREWE, ENGLAND.**

LIBERAL TERMS FOR FOREIGN BUYERS.



**WHOLESALE PRICES OF PHOSFERINE.****CASH WITH ORDER.**

1/1½ size Phosferine	...	10/2½ per dozen net
2/9 " "	...	25/6 " " "
4/6 " "	...	40/9½ " " "

5 GROSS LOTS (assorted sizes if required) subject to 1½ per cent. Cash Discount.

10 GROSS LOTS (assorted sizes if required) subject to 2½ per cent. Cash Discount.

**PROTECTED PRICE.**

The selling price of Phosferine is Protected, it must not be retailed in the United Kingdom under the following prices, viz.:—1/1½ size for 1/—, the 2/9 size for 2/6, 4/6 size for 4/—.

Full prices to be obtained when possible.

# PHOSFERINE

**The Greatest of all Tonics,**

Is a good paying line for Chemists—the Retail price is protected, and, as it contains nothing poisonous, it can be sold without restriction.

Being a highly Concentrated Medicine, its storage occupies very little of the valuable space in a Pharmacy.

It is one of the largest advertised medicines in the kingdom, and sells freely.

It can be recommended with the greatest confidence for all Nerve Pains, Nervous Disorders, Rheumatism, Nervous Headache, Dyspepsia, General Debility, &c.

**ROYAL COMMANDS.**

PHOSFERINE has been supplied by Command of

Members of the British Royal Family,  
H.I.M. The Empress of Russia,  
H.M. The King of Greece,  
H.I.M. The Dowager Empress of Russia,  
H.M. The Queen of Roumania,  
&c., &c., [1]

A recommendation that can be claimed for no other Proprietary Medicine.

**ASHTON & PARSONS. LTD.**

LA BELLE SAUVAGE LONDON E.C.  
LUDGATE HILL,

## CAUTION.

To Imitators or Dealers in Imitations of

# PHOSFERINE.

**PERPETUAL INJUNCTION,**

WITH

**DAMAGES AND COSTS,**

obtained against Frederick John Fowles for using the word

**PHOSFEROQUIN.**

In the High Court of Justice,

CHANCERY DIVISION.

Before MR. JUSTICE COZENS-HARDY.

Between ASHTON & PARSONS, LIMITED,

Proprietors of "Phosferine" (Plaintiffs)

AND

FREDERICK JOHN FOWLES (Defendant).

A PERPETUAL INJUNCTION with damages and costs was granted on the 14th December, 1900, restraining the above-named Defendant, his servants and agents from in any manner infringing the Plaintiffs' Registered Trade Mark, 6,530, and from selling or offering or exposing or advertising for sale or procuring to be sold any medical preparation not prepared by the Plaintiffs under the name of "Phosferine" or under any other name which by colourable imitation of the Plaintiffs' word "Phosferine" or otherwise was calculated to represent or lead to the belief that such preparation is "Phosferine" or is a preparation of the Plaintiffs, and from selling or supplying any such preparation as aforesaid in response to orders for "Phosferine" or for a preparation of the Plaintiffs or from otherwise passing off or enabling or assisting others to pass off any such preparation as aforesaid as or for "Phosferine" or a preparation of the Plaintiffs.

All information relating to the infringement or dealers in infringements of "Phosferine" will be confidentially treated, and should be addressed to the proprietors of "Phosferine."

**ASHTON & PARSONS, LTD.**

LA BELLE SAUVAGE, LONDON, E.C.  
LUDGATE HILL,

Or to Messrs. J. E. EVANS-JACKSON & CO.,  
Patent Agents,

Bristol House, Holborn Viaduct, E.C.

*Extract from a letter we  
received a few days ago.*

CRIEFF,

Scotland.

I may state that although this town has only 5,000 population, I have so successfully demonstrated your perfect little instrument that I have, since taking it up, sold a good bit over 100 razors. The sale is easy, the return is good, and your customer is thoroughly satisfied. In fact, at least 30 of the sales have been to users of the ———, of which I only keep one to show as the "horrible example" and to help me to demonstrate the superiority of the "AutoStrop."

Wishing the AutoStrop its deserved success,

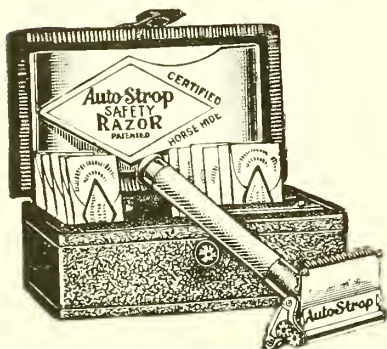
I am, Yours Faithfully,  
(Signed) A. P. MILL.

You can demonstrate the

# AutoStrop

## SAFETY RAZOR

to your customers with the same satisfactory  
results secured by Mr. Mill.



All the large Wholesalers  
now stock the AutoStrop.

*It is the only Safety Razor that can be kept constantly  
sharp without the continual expense of new blades.*

**AutoStrop Safety Razor Co., Ltd.**

**61 New Oxford St., LONDON, W.C.**

Also at DUBLIN, PARIS, NEW YORK, and MONTREAL.

**PRICES.**

Retail	...	...	...	21/- net.
Wholesale (3 doz. lots)	...	...	...	14/- each.
Smaller quantities	...	...	...	14/9 "



# BRUNNER, MOND & Co.'s

Alkali  
Products.



Crescent  
Brand.

These products are made by the Ammonia Process, and are distinguished from others by their great purity.

## Bicarbonate of Soda.

This Bicarbonate answers all the requirements of the British Pharmacopœia. It is a pure, refined, and recrystallised salt, particularly free from metals or any base other than soda. This sodium bicarbonate is specially suitable for the preparation of granular effervescent preparations and salines, seidlitz powders and baking powders, and is well adapted for other medicinal and domestic purposes. It is the purest and cheapest sodium bicarbonate made.

## Concentrated Crystal Soda.

This sodium compound (sodium sesquicarbonate) is a variety of carbonate of soda in small silky crystals, containing much less water than ordinary washing soda; 1 lb. of it does the work of 2 lbs. of washing soda. Concentrated crystal soda is excellently suited for chemists' trade; they can make a speciality of it, and it is also suited for making water-softeners, brush powders, hair-wash powders, and the like.

## Pure Alkali. 58 Degrees.

A dry white powder; dissolves quickly and easily in water, making an excellent detergent for use by printers, bleachers, dyers, and for bottle washing. Is nearly equal to 99 per cent. carbonate of soda; is much used by glass, paper, and soap makers. The best alkali for soap powders and washing powders.

## Pure Soda Crystals.

**NOTE.**—Proceedings have been taken by the Board of Trade against a person for selling as Soda Crystals an adulterated article, and the High Court has upheld the conviction. See the case of **FOWLER v. CRIPPS**, heard on 8th November, 1905, before a Divisional Court, consisting of the Lord Chief Justice, Mr. Justice Wills, and Mr. Justice Darling.

## Caustic Soda.

## Bleaching Powder.

Manufactured from pure Carbonate, and supplied of all degrees of strength.

Retailers can obtain these products through any Wholesale house by specifying Brunner, Mond & Co.'s "Crescent" Brand. The Manufacturers supply wholesale quantities only, and will quote on application to

**BRUNNER, MOND & CO., LIMITED, NORTHWICH, CHESHIRE.**



# COX'S NEW LINES.



The exorbitant charges of several makers of the Lactic Acid bacilli tablets, and their endeavour to name their brand and thus add to the already enormous list of *proprietary* medicines, has compelled us to offer to the chemist a reliable Lactic Acid bacilli tablet of guaranteed activity at reasonable prices:

Per dozen boxes of 50 **18/-** Retailing at 2/6 each.

CHEMIST'S OWN NAME ON ONE DOZEN.

Well packed. Elegant finish. Selection of Styles.

Indicated in the treatment of Acidity, Constipation, Colitis, Corrective, Diabetes, Diarrhoea, Dysentery, Enteric Fever, Enterocolitis, Flatulence, Gastro-Enteritis, Indigestion, and Intestinal Tuberculosis.

## INSTRUCTIONS FOR MAKING - HEALTH MILK



Boil a pint of New Milk, cool to blood heat, skim, add three or four Tablets previously crushed, put into three tumblers as shown in illustration, or, if preferred, into a basin, place in top of apparatus with warm water, leave for ten hours with night light burning. Then pour off whey and leave until morning. Eat the curds with castor sugar, preferably before breakfast. Never use the curds after the first day.

**24/-**

Per dozen Wholesale

## MARIENBAD ANTI-OBESITY TABLETS.

These Tablets contain Sal. Marienbadens, Ext. Rhei, Extr. Aloes, Extr. Cascarie Sagrad., and have been proved to be very efficacious, yet quite harmless.

SILVER COATED. ELEGANTLY PACKED. **6/6** per doz.

## TAMARIND PELLETS.



For Constipation and Disorder in the Stomach and Intestines.

Quite a Sweetmeat.

Taken Readily by Children.

A pleasant non-irritating and efficacious laxative for the treatment of habitual constipation.

6 Pellets wrapped in tinfoil in box, labelled with Chemist's Name and Address.

Per **4/6** doz.

**ARTHUR H. COX & CO., Ltd.,**

The Original  
Makers of  
Tasteless Pills,

**BRIGHTON, ENG.**

Telegraphic Address: "COX BRIGHTON"

Telephones: Nat. 5895; P.O. 895.

## CADBURY'S COCOA

A DELICIOUS BEVERAGE AND AN INVALUABLE FOOD.



PATTINSON'S

## MAGNESIA,

CARBONATE, CALCINED AND FLUID.

THE WASHINGTON CHEMICAL CO., LIM., WASHINGTON, COUNTY DURHAM, ENGLAND.

London Agents—Messrs. CLIFFORD CHRISTOPHERSON & CO., 21 Mincing Lane, London, E.C.

## DICHROIC INK

THE BEST BLACK INK KNOWN.

When this Ink is Used Writing becomes a Pleasure.  
MAY BE HAD FROM ALL CHEMISTS AND DRUGGISTS.

IN JARS, **BEWLEY & DRAPER, LTD.**  
6d., 1/-, and 2/- each **DUBLIN.**





